1657. Yacowitz (H.), Wind (S.), Jámbor (W. P.), Willett (N. P.), & Pagano (J. F.). **Use of mycostatin for the prevention of moniliasis (crop mycosis) in Chicks and Turkeys.**—*Poult. Sci.*, **38**, 3, pp. 653–660, 1 fig., 1 graph, 1959. [10 ref.] [*V.B.*, **29**, p. 610.]

At Squibb Inst. Med. Res., New Brunswick, New Jersey, mycostatin in the ration prevented moniliasis (*Candida albicans*) in experimentally infected chicks and markedly reduced incidence in experimentally infected turkeys. In most experiments, mycostatin-fed birds grew more rapidly than the controls. Mycostatin effectively controlled spread in chicks and reduced spread in turkeys.

1658. Borland (D. S.). **Mucormycosis of the central nervous system.**—*J. Dis. Child.*, **97**, 6, pp. 852–856, 3 fig., 1959. [*B.H.*, **34**, p. 118.]

A rapidly fatal infection caused by a *Mucor* or *Rhizopus* sp. with large, broad, branching, non-septate hyphae in a 7-month-old negro boy is reported from the Univ. Kansas med. Center, Kansas City. The ethnoid sinus, right orbit and eye, sella turcica, and base of the brain were involved, with infarction necrosis of both cerebral hemispheres. The patient was in a severe state of acidosis, which apparently permitted an ordinarily harmless organism to become pathogenic. The infection was not recognized either clinically or at autopsy until histological preparations were examined.

1659. Muresan (A.). **A case of cerebral mucormycosis diagnosed in life, with eventual recovery.**—*J. clin. Path.*, **13**, 1, pp. 34–36, 4 fig., 1960. [15 ref.]

A case of mucormycosis localized in the brain of an 18-yr.-old male, who did not have diabetes, and from whom an intra-cerebral cyst was excised at the Colentina Hosp., Bucharest, Romania. The cyst consisted of hyphae in chronic granulation tissue. Culture was not attempted. The patient left hospital 6 weeks after the operation and has now been well for $2\frac{1}{2}$ yr.

1660. Hutter (R. V. P.). **Phycomycetous infection (mucormycosis) in cancer Patients: a complication of therapy.**—*Cancer, Philad.*, **12**, 2, pp. 330–350, 10 fig., 1959.

A critical, tabulated review of 110 cases from the lit. and a report of 4 new ones in male patients (including 3 boys) at the Memorial Hosp., N.Y. In 2 of the boys and the adult *Mucor* sp. was associated with a less aggressive infection by *Candida* sp.

1661. Sutherland (J. C.) & Jones (T. H.). **Gastric mucormycosis: report of a case in a Swazi.**—*S. Afr. med. J.*, **34**, 8, pp. 161–163, 2 fig., 1960.

The gastric lesion in a 50-yr.-old male patient at the Ethel Lucas Memorial Hosp., Acornhoek, E. Transvaal, was composed of necrotic and haemorrhagic material diffusely infiltrated by numerous non-septate hyphae typical of *Mucor* sp. The lungs were also involved but the fungus was apparently confined to the stomach. A possible factor in the causation of the disease was the heavy consumption of Bantu stray beer.

1662. Gale (G. R.). **Gas exchange in Rhizopus oryzae.**—*J. infect. Dis.*, **106**, 2, pp. 149–153, 5 graphs, 1960.

In connexion with the increasing incidence of mucormycosis in U.S.A. of recent years [see above] a study was undertaken at Duke Univ. med. Center, Durham,

N. Carol., to obtain further information on oxidation and glycolysis in *R. oryzae*, an important and sometimes lethal agent in cases of uncontrolled diabetes and certain types of antibiotic, antileukaemic, and steroid therapy.

Endogenous O_2 uptake of mycelial pellets of the fungus grown in shaken cultures on Sabouraud's broth+0·25 mg./l. tween 80 was of relatively large magnitude, declining slowly with time. The opt. pH for the process was 6·5 and it was inhibited by –CN, 2,4-dinitrophenol, Hg and Cu ions, azide, and increasing concs. of KCl or NaCl. The initial RQ of O_2 consumption was 1, falling to approx. 0·6 after 2 hr. incubation and increasing on addition of glucose or galactose.

Endogenous anaerobic CO_2 release decreased rapidly with time, but the trend was reversed by the addition of glucose; the marked resultant increase, however, was F-sensitive. Endogenous aerobic CO_2 liberation was more abundant, linear for a min. of 4 hr., and unaffected by thiosemicarbazide. Pyruvate caused an increase in the process approx. 10% of that produced by glucose.

1663. Van Dresser (W.) & Rooney (J. R.). **Mucormycosis in Swine. A case report.**—*Mich. St. Univ. Vet.*, **20**, 1, pp. 10–11, 1959.

A 6-month-old Hampshire barrow, slaughtered at the Animal Pathology Section, Virginia agric. Exp. Sta., Blacksburg, following significant loss of weight, was found to have a large caseous-centred abscess in the great mesentery, while the liver, approx. twice the normal size, was studded with multiple, firm, white, homogeneous nodules of various sizes, showing a marked tendency to coalesce. The mesenteric lymph nodes were enlarged, and both they and the liver exhibited streaks and patches of haemorrhagic tissue. Histopathological findings are given. The presence of coarse, short, branching, often septate hyphae, often free, but more commonly partially or completely engulfed by giant cells, was taken to justify a diagnosis of mucormycosis. The causative fungus was not isolated.

1664. Kaplan (W.), Goss (L. J.), Ajello (L.), & Ivens (M. Sue). **Pulmonary mucormycosis in a Harp Seal caused by Mucor pusillus.**—*Mycopathologia*, **12**, 2, pp. 101–110, 7 fig., 1960.

A report from the Communicable Disease Center, Atlanta, Ga., of fatal pneumonia, caused by *M. pusillus*, in a captive harp seal (*Phoca groenlandica*). The fungus was isolated from dark red, 'meaty' lungs on Sabouraud dextrose agar, and branched aseptate hyphae were present in sections of lung material.

Intranasal instillation of a saline spore suspension into alloxan-diabetic rabbits led to the development of dark foci of pneumonia, and histopathological studies revealed small granulomata with central necrotic areas, some of which contained aseptate mycelium. No disease developed in a healthy rabbit inoculated in like manner.

1665. Symmers (W. St. C.). **Mucormycotic granuloma possibly due to Basidiobolus ranarum.**—*Brit. med. J.*, **1**, 5182, pp. 1331–1333, 1 fig., 1960.

From Charing Cross Hosp. med. Sch., London, is reported a case of subcutaneous mucormycotic granuloma in a 13-yr.-old Dutch girl who had lived in Indonesia. The lesion, 5 cm. diam., between the shoulder blades, was examined histologically and diagnosis was made from sections which appeared very similar to sections supplied by Emmons from 2 clinically similar cases attributed to *B. ranarum* [**2**, No. 2153]. The lesion resolved in 9 months without treatment.

1666. Peterson (J. E.) & Baker (T. J.). **An isolate of Fusarium roseum from human burns.**—*Mycologia*, **51**, 3, pp. 453–456, 5 fig., 1959.

At Univ. Mo., Columbia, *F. roseum* was found growing on the wounds of a 5-yr.-old boy severely burned in a gasolene fire. Although the prognosis was poor, the patient

recovered so rapidly that the initial skin grafting was carried out earlier than usual. The fungus, which appeared to be instrumental in the early separation of the burn eschar, was probably introduced into the wounds while the child was being rolled on the ground to extinguish the flames.

1667. Segretain (G.). **Penicillium marneffei n. sp., agent d'une mycose du système réticulo-endothéliale.** [*P. marneffei* n. sp., agent of a mycosis of the reticulo-endothelial system.]—*Mycopathologia*, **11**, 4, pp. 327–353, 15 fig., 1959; **Description d'une nouvelle espèce de Penicillium : Penicillium marneffei n. sp.** [Description of a new *Penicillium* sp.: *P. marneffei* Segretain]—*Bull. Soc. mycol. Fr.*, **75**, 4, pp. 412–416, 1 col. pl., 1 fig., 1960.

The 1st paper, from the Institut Pasteur, Paris, describes the effects of parenteral inoculation of this fungus—agent of a fatal infection in captive bamboo rats [**2**, No. 2584]—into laboratory animals. Rats and hamsters developed a diffuse macrophagic reticulosis of the spleen, the liver, and even the lungs, resembling that met with in histoplasmosis or leishmaniasis. The round, oval, or slightly elongated cells of the fungus, developing in the reticulo-endothelial cells of the host, multiplied by transverse cell division. Cultures at 37° C. on Czapek, Sabouraud glucose, and beer wort media were composed of arthrospores and were of a smooth, creamy consistency recalling a bacterial culture. The fungus is considered to be a new sp., close to *P. janthinellum* and *P. citrinum*. Physiological characteristics are described.

The 2nd paper is a full description of the fungus with the name validated by a Latin diagnosis.

1668. Byers (J. L.), Holland (M. G.), & Allen (J. H.). **Cephalosporium keratitis.**—*Amer. J. Ophthal.*, **49**, 2, pp. 267–269, 2 fig., 1960.

Two cases of hypopyon corneal ulcer, each yielding a *Cephalosporium* sp. in culture, are reported in 47- and 59-yr.-old negroes from the Tulane Univ. Sch. Med., New Orleans, bringing the total on record to 5. In the 1st case the cornea exhibited a purplish-black pigmentation which was absent from the culture. Healing was promoted by topical applications of 0·125% $CuSO_4$ solution combined with the oral administration of NaI. In *in vitro* tests the fungus was definitely inhibited by $CuSO_4$ and also proved sensitive to amphotericin B and nystatin [mycostatin].

1669. Gordon (M. A.), Vallotton (W. W.), & Groffead (G. S.). **Corneal sclerosis. A case of keratomycosis treated successfully with nystatin and amphotericin B.** —*Arch. Ophthalmol.*, **62**, pp. 758–763, 6 fig., 1959. [14 ref.]

This case is reported from med. Coll. N. Carol. as the 1st in which a corneal ulcer with hypopyon, developed in a patient struck in the eye with a fish scale, was successfully treated by specific antifungal therapy using nystatin and amphotericin B. KOH examination of scrapings from the cornea demonstrated numerous conidia and hyphae of *Allescheria boydii* (*Monosporium apiospermum*) [**2**, 1633], the identity of which was confirmed in culture. Application of massive doses of broad-spectrum antibacterial drugs was unsuccessful.

1670. Batista (A. C.), Silveira (J. S.), & Tavares de Campos (S.). **Lesion facial humana, producida por Endomycopsis epidermalis n.sp.** [Human facial lesion caused by *E. epidermalis* Batista, Silv., & Campos.]—*Rev. ecuat. Hig.*, **16**, 1, pp. 21–23, 1 fig., 1960. [Engl. summ.]

From Instituto de Micologia, Univ. Recife, Brazil, details are given of a hitherto undescribed pink, non-fermenting, ascosporic yeast (mycelium 1–1·5 μ diam.; blastospores, ellipsoidal, catenulate, 2–2·5 × 1·5–2 μ; asci 8-spored, 7–10 × 6–7 μ; ascospores, globose, 1·5–2 μ diam.) isolated from a superficial facial lesion on a

33-yr.-old white woman. The lesion resolved after 35 days treatment with 2% salicylate-vaseline.

1671. Alecrim (I.) & Ciferri (O.). **Blastocystis sp. Generalidades sôbre o cultivo e aspectos morfológicos.** [The culture and morphological aspects of *Blastocystis* sp.]—*An. Fac. Med. Recife*, **18**, 2, pp. 297–300, 1958.

No cultures were obtained on solid media. Growth on Ringer ovomucoid was inhibited by large amounts of antibiotics. It is inferred that this effect is due to the action of the antibiotics on the bacteria which would otherwise destroy a capsule-like structure and facilitate the liberation of spores.

1672. Batista (A. C.) & Vieira (J. R.). **Ocorrência de Polyscytalum murinum Oud. sôbre Peixe Carassius.** [The occurrence of *P. murinum* Oud. on the fish *Carassius*.]—*Rev. vet., Pernambuco*, **5**, pp. 25–27, 1 fig., 1959. [Engl. summ.]

This fungus, described by Oudemans (*Hedwigia*, p. 166, 1882) but subsequently rarely referred to, was found by the authors, at Univ. Recife, Brazil, to be associated with an intestinal disease of fish of the genus *Carassius*. Cultural characteristics on several media are described. The septate hyphae of the sterile mycelium are sparsely branched, and 1·5–2·5 μ diam. Small caespitose cushions arise, bearing bundles of hyaline, sparsely branched, sparsely septate, attenuated, cylindrical conidiophores (65–80 × 1·5–3 μ). The hyaline conidia, arising in chains, are straight, cylindrical, truncated at both ends, and have up to 2 droplets.

1673. Hamilton (Elizabeth D.). **Studies on the air spora.**—*Acta allerg., Kbh.*, **13**, 2, pp. 143–173, 11 graphs, 1959. [26 ref.]

A report from the Wright Fleming Inst. Microbiol., London, on a quantitative and qualitative survey of particles 3–40 μ diam. trapped May–Sept., 1954 on the roof of Imperial Coll., London, and in an arable field at Rothamsted exp. Sta., and during the same period in 1955 on the former site only, with particular reference to the fungus spore component. The counts of different spore types ranged from an av. of 1/cu. m. air for *Chaetomium* to 5,710 for *Cladosporium*. Among the numerous fungi represented were *Entomophthora*, with a max. in late Aug. and early Sept. (18·3–20·6°C.), *Coniophora* (same temp.) and several other Basidiomycetes, *Puccinia* spp. (Aug., 3 p.m., 23·9–26·1°), *Ustilago avenae* (mid-June–late July, afternoon, 21·1–23·3°), *Sporobolomyces* (July–Aug., 3–5 a.m., 15·6–17·8°), *Leptosphaeria* (last week in May–1st in June, 4·4–6·7°), *Venturia* (May, 11 a.m.–3 p.m., 7·2–9·4°), *Alternaria* (mostly *A. tenuis*) (late Aug.–early Sept., 24°–29°), *Botrytis* (Aug.–Sept., 26·7–28·9°), *Cladosporium* (July–Sept., afternoon, 21·1–23·3°), *Erysiphe* (20 June–10 July, afternoon, 21·1–23·3°), *Helminthosporium* (late Aug.–early Sept., 26·7–28·9°), *Macrosporium* (end of July and during Aug., 26·7–28·9°), *Penicillium* (winter and spring, afternoon, 10–12·2°), *Periconia* (July–Sept., 21·1–23·3°), *Polythrincium trifolii* (end of Aug., 23·9–26·1°), *Pullularia* (late July–Sept.), and *Torula* (spring and autumn, noon, 23·9–26·1°).

1674. Pestalozzi (C.). **Febrile Gruppenerkrankungen in einer Modellschreinerei durch Inhalation von mit Schimmelpilzen kontaminiertem Befeuchterwasser ('Befeuchterfieber').** [Febrile disease of a group of carpenters in carpentry works through inhalation of air contaminated by moulds from water in a humidifier.]—*Schweiz. med. Wschr.*, **89**, 27, pp. 710–713, 1959. [12 ref. *B.H.*, **34**, p. 1125.]

Although at the dermat. Clinic, Zürich Univ., scratch tests on the workers with dusts from the work-room and with an *Aspergillus* str. were negative, the cause of the illness is attributed to the presence of various kinds of *Penicillium*, *Aspergillus*, *Mucor*, *Scopulariopsis*, *Cephalosporium*, and *Trichoderma* in the aerosol apparatus. When this was sterilized, no further cases were noted.

1675. Uyterlinde (B.). **De boerenlong, een acute longziekte na het dorsen van beschimmeld graan.** ['Farmer's lung', an acute pulmonary disease from threshing mouldy grain.]—*Ned. T. Geneesk.*, **103**, 9, pp. 457–459, 1 fig., 1959. [Engl. summ. 10 ref. *B.H.*, **34**, p. 1125.]

Candida albicans and *C. pseudotropicalis* were isolated from the stomach contents of an agricultural worker (aged 66) with pyrexia of unknown origin, treated in a Rotterdam hospital for 16 days. Administration of 1 g. KI 3 times daily lowered temp. to normal. Freedom from symptoms and full working capacity were regained after 2 months.

1676. Freytag (J.), Nicewicz (W.), & Pleszczynski (W.). **Untersuchungen über die Staubverdichtung beim Dreschen mit gleichzeitiger Bestimmung der Mikroflora des Staubes.** [Examinations of dust concentration during threshing with simultaneous identification of dust microflora.]—*Arch. Hyg., Berlin*, **143**, 5, pp. 321–333, 12 fig., 1959. [50 ref. *B.H.*, **34**, p. 1125.]

In examinations of threshing dust and swabs from the nose and throat of 11 workers (4 men, aged 20–22, and 7 women, 17–22) who had been exposed to it, 139 strs. (22 gen.) of fungi imperfecti were isolated.

1677 *a*. **Report of fact finding committee on facial eczema.**—pp. 3–24, Government Printer, Wellington, N.Z. (H. 48) 1957. 1*s*.

b. Filmer (J. F.). **Losses from facial eczema can be prevented.**—*Bull. N.Z. Dep. Agric.* 388, pp. 3–10, 4 fig., 1957. [Reprinted from *N.Z. J. Agric.*, **91**, 6, pp. 561–567, 4 fig., 1955.]

c. Worker (N. A.). **A hepatotoxin causing liver damage in facial eczema of Sheep.**—*Nature, Lond.*, **185**, 4717, pp. 909–910, 4 fig., 1960.

At Ruakura Animal Res. Sta., Hamilton, toxic extracts rated at an equivalent of 0·3–1 l. of culture of *Sporidesmium bakeri* [cf. below] were injected intraportally into the rabbit and produced liver lesions. Toxicity of bile was first observed ½ hr. after injection and reached its max. after 2 hr. When toxic bile was dripped into the duodenum of healthy rabbits, liver lesions developed in 11 of 14 cases.

d. Synge (R. L. M.) & White (E. P.). **Sporidesmin : a substance from Sporidesmium bakeri causing lesions characteristic of facial eczema.**—*Chem. & Ind. (Rev.), 1959*, 49, pp. 1546–1547, 1 graph, 1960.

Report on a chemical study from the Ruakura Animal Res. Sta., Dept Agric., Hamilton, N.Z.

e. Russell (G. R.). **Detection and estimation of a facial eczema toxin, sporidesmin.**—*Nature, Lond.*, **186**, 4727, pp. 788–789, 2 graphs, 1960.

Gives details of a method based on paper chromatography developed at Ruakura Animal Res. Sta., Hamilton, N.Z. [cf. **3**, Nos. 1547–1551].

f. Thornton (R. H.) & Sinclair (D. P.). **Some observations on the occurrence of Sporidesmium bakeri Syd. and facial eczema disease in the field.**—*N.Z. J. agric. Res.*, **3**, 2, pp. 300–313, 2 fig., 2 graphs, 1960. [10 ref.]

At D.S.I.R., Wellington, and Animal Res. Sta., Manutuke, a relationship was observed between the high rate of *S. bakeri* spores on dead and damaged pasture plants and facial eczema disease in lambs. Spore counts and 'beaker test' values were shown to be correlated. [See also *Nature, Lond.*, **184**, 4695, pp. 1327–1328, 1959.]

1678. Janes (B. S.). **Sporidesmium bakeri recorded from Victoria, Australia.**—*Nature, Lond.*, **184**, 4695, p. 1327, 1959.

The 1st record of facial eczema for Australia.

1679. Nakazima (M.). **Disease in mice induced by yeast.**—*J. Jap. Bot.*, **32**, 9, pp. 261–267, fig., 1957. [*B.A.*, **32**, 16872.]

Yeasts including *Candida pelliculosa*, *Pullularia pullulans*, *Hansenula anomala*, and *Debaryomyces kloeckeri*, from poisonous shell-fish, induced hepatic injury in mice following intraperitoneal or oral administration. Some hepatic changes in mice and rats were induced by prolonged feeding with *Torulopsis* [*Candida*] *utilis*.

1680 *a*. Gitler (C.), Sunde (M. L.), & Baumann (C. A.). **Necrogenic potency of yeasts grown on various media.**—*J. Nutr.*, **63**, 3, pp. 399–408, 1957.

b. Forbes (M.) & Gyorgy (P.). **Effect of yeast and of yeast extracts on liver necrosis and hemolysis by dialuric acid of red blood cells of rats on a necrogenic diet.**—*J. Nutr.*, **63**, 3, pp. 461–470, 1957.

1681. Ciferri (R.). **Manuale di micologia medica. Tomo II. Parte speciale. II Edizione.** [Manual of medical mycology. Vol. 2. Special part. 2nd Ed.]—v+796 pp., 15 col. pl., 605 fig., Pavia, Casa Editrice Renzo Cortina, 1960. L. 12,000.

Vol. 1 of this Manual has been noticed [**3**, No. 461]. The entire 1st Ed. of Vol. 2 was distributed in 1958 *hors commerce*. Pp. 1–544 of the 2nd Ed. is a reprint of the 1st Ed. but pp. 547–724 comprise an extensive bibliography (sub-divided according to the 16 chapt.) and pp. 725–796 a detailed analytical index to the 2 vol., items not included in the 1st Ed.

Each chapt. is devoted to a major disease or group of diseases (actinomycosis, coccidioidomycosis and rhinosporidiosis, aspergillosis, mycoses caused by yeasts, dermatophytoses, etc.) and each disease is treated uniformly under a series of standard headings (definition, geographical distribution, hosts, etiology, symptomatology, pathological anatomy, immunology, prognosis, therapy, etc.). There are a number of keys to aid identification of the fungi. The final chapt. of this notable work is devoted to allergic conditions and a few miscellaneous mycotic infections, and concludes with a short appendix on pathogenic algae.

Among several new names proposed are: *Candida metalondinensis* and *C. tropicalis* as 2 vars. of *C. albicans*; *Pityrosporum sphaericum* (Bizzoz.) Cif. as the name for *P. orbiculare* [**1**, No. 2366]; and *Histoplasma duboisii* as a var. of *H. capsulatum* [cf. **3**, No. 901].

1682. Hazen (Elizabeth L.) & Reed (F. C.). **Laboratory identification of pathogenic fungi simplified.**—2nd Ed., xv+150 pp., 36 fig., Oxford, Blackwell Scientific Publications, Ltd., & Springfield, Ill, C. C. Thomas, 1960. 60*s*.

This useful and well-illustrated manual [**2**, No. 1140] has been enlarged to include some other fungal diseases and a section on common laboratory contaminants.

1683. Castellani (A.). **Microbes, men and monarchs. A doctor's life in many lands.**—287 pp., 5 pl., London, Victor Gollancz Ltd., 1960. 25*s*.

Medical mycologists will be interested in this autobiographical account of a colourful life.

1684. Meyer (J.). **In Memoriam. Auguste Sartory (1881–1950).**—*Mycopathologia*, **8**, 3, pp. 239–242, portr., 1957.

A brief review of the career of Prof. A. Sartory, author of *Champignons parasites de l'homme et des animaux*, 1920–23 (Suppl. 1–5, 1923–49).

1685. Skerman (V. B. D.). **A guide to the identification of the genera of Bacteria.**—ix+217 pp., 31 pl., Baltimore, Md, Williams J. Wilkins Co., 1959. $5.50; 44*s*.

This useful supplement to *Bergey's Manual* [**3**, No. 332] comprises a comprehensive generic key, a brief illustrated synopsis of genera, and details of methods for studying bacteria. Actinomycetes are included and there is a tabulation of the antibiotics produced by 149 *Streptomyces* spp.

1686. Bulloch (W.). **The history of bacteriology.**—xii+422 pp., 16 pl., 36 fig., London, Oxford University Press, 1960. 30*s*. [64 pp. ref.]

This reprint of a work first published in 1938 and for long out of print will be welcomed. Although medical mycology is only mentioned incidentally the history of the etiology of bacterial diseases, spontaneous generation, and the classification and cultivation of bacteria has many interconnexions with that of fungi as pathogens.

1687. Fegeler (F.). **Untersuchungen zu aktuellen Fragen der medizinischen Mykologie.** [A study of current problems in medical mycology.]—*Mykosen*, **1**, 3, pp. 79–87, 2 fig.; 4, pp. 111–132, 29 fig.; 6, pp. 147–164, 14 fig., 1958. [Numerous ref.]

A general review of the culture and identification of dermatophytes and yeasts (Parts 1 and 2) and of clinical diagnosis of ringworm and moniliasis (Part 3).

1688. Paldrok (H.). **Medical mycology in Scandinavia and Finland during a century, from 1841 to 1940.**—*Mycopathologia*, **12**, 4, pp. 289–348, 1960. [32 pp. ref.]

A résumé of Scandinavian and Finnish contributions to medical mycology during this period, arranged under diseases.

1689. Pollak (L.). **Análisis de 4,056 cultivos para diagnóstico de micosis profundas.** [Results of the study of 4,056 cultures for the diagnosis of deep mycoses.]—*Rev. Tisiol. Neumol., Carácas*, **1**, 1, pp. 109–113, 1959. [Engl. summ.]

Results from the Instituto Nacional de Tuberculosis, Carácas, Venezuela.

1690. Utz (J. P.) & Treger (A.). **The current status of chemotherapy of systemic fungal disease.**—*Ann. intern. Med.*, **51**, 6, pp. 1220–1229, 1959. [Interlingua summ. *B.H.*, **35**, p. 448.]

The current status of chemotherapy for systemic mycoses is examined under the headings actinomycosis, nocardiosis, aspergillosis, mucormycosis, histoplasmosis, cryptococcosis, blastomycosis, coccidioidomycosis, and candidiasis. In general penicillin is still the most effective treatment for actinomycosis. Sulphadiazine in combination with an antibiotic is recommended for nocardiosis. Iodides and vaccine therapy are the major therapeutic measures for aspergillosis, and iodides are the standard treatment for sporotrichosis, geotrichosis, and penicilliosis. Little is known of chemotherapy for mucormycosis, though success has been achieved in a few cases by surgical removal of the focus, or by control of the underlying disease, *e.g.* diabetes. Amphotericin is effective for histoplasmosis and blastomycosis, and is apparently the best drug so far available for cryptococcosis; it is least effective against systemic moniliasis and coccidioidomycosis, but merits use in the absence of other effective chemotherapy.

1691. Tosh (F. E.) & Furcolow (M. L.). **Roundup on the systemic fungus diseases.** —Reprinted from *Nat. Tuberc. Assoc. Bull.*, **45**, 11, 4 pp., 3 maps, 1959.

A general review from the U.S. Public Health Service, Kansas City, on the incidence and characteristics of systemic fungal infections with special reference to histoplasmosis (*Histoplasma capsulatum*), coccidioidomycosis (*Coccidioides immitis*) and N. American blastomycosis (*Blastomyces dermatitidis*).

1692. Riddell (R. W.) & Clayton (Yvonne M.). **Pulmonary mycoses occurring in Britain.**—*Brompton Hosp. Rep.*, **27**, pp. 235–250, 8 fig., 1958.

A reprint of **3**, No. 445.

1693. Takaro (T.), Walkup (H. E.), & Matthews (J. H.). **The place of excisional surgery in the treatment of pulmonary mycotic infections.**—*Dis. Chest*, **36**, 1, pp. 19–30, 1959. [Sp., Fr., Germ. summ.]

The authors' conclusions, reported from the Veterans Administration Hosp., Oteen, N. Carol., are based on 75 cases of pulmonary mycotic infection at that hospital, together with a survey of 500 other cases from the literature.

North American blastomycosis (*Blastomyces dermatitidis*) is currently best treated with 2-hydroxystilbamidine, in spite of a relapse rate of approx. 25%. Excision of cavities should be undertaken only after adequate chemotherapy. The surgical mortality rate without drug coverage is 24%, half of which is due to dissemination of the disease.

Coccidioidomycotic cavities (*Coccidioides immitis*) should be excised only if very large, secondarily infected, or productive of repeated haemorrhages, or where they have ruptured into the pleural space. Excision of asymptomatic or mildly symptomatic small cavities is followed by appreciable morbidity (13%) and mortality (2%).

The need for excision of chronic cavities in histoplasmosis (*Histoplasma capsulatum*) has not been clearly determined, but in the absence of specific drug therapy the excision of localized destructive lesions is recommended: the mortality rate following excision is 16%.

Focal granulomas due to coccidioidomycosis or histoplasmosis need not be resected therapeutically, though, since they usually cannot be differentiated from other coin lesions, resection for diagnosis will often continue to be necessary: this is a relatively safe procedure.

1694. Riera-Zubillaga (A.), Campins (H.), Gomez-Lopez (L.), Sanoja (T.), Bracamonte (A.), Urdaneta (E.), Millán (A.), & Angulo-Ortega (A.). **Mesa redonda sobre enfermedades pulmonares no tuberculosas.** [Round table on non-tuberculous diseases of the lungs.]—*Arch. venez. Pueric.*, **21**, 69, pp. 205–219, 1959.

An enumeration of the main mycoses of the lungs.

1695. Janke (D.). **Zur Abgrenzung von Lykopodium-Sporen gegenüber Pilzen als Einschluß in Granulomen.** [Distinction between *Lycopodium* spores and fungi occurring as inclusions in granulomata.]—*Mykosen*, **2**, 2, pp. 69–70, 1959.

A patient, who had undergone an operation for resection of a tubercular segment of the lung, was returned for a similar operation 4 months later when it was found that the infection was spreading. Numerous granulomata were found to have developed at the site of the 1st operation and fungal infection, possibly by *Coccidioides immitis*, was suspected until the inclusions were identified as *Lycopodium* spores, used for dusting the surgeon's gloves.

1696. Sorsby (A.). (Editor). **Systemic Ophthalmology.**—2nd Ed. xiv+682 pp., 277 fig., London, Butterworth & Co. (Publishers) Ltd., 1958. 105*s*. [20 ref. on p. 674.]

This book includes a chapt. (pp. 269–284) by H. L. Birge (Dept Ophthalmology, Yale Univ.) describing briefly the symptoms, diagnosis and treatment of mycotic infections of the eye and its surrounding tissues [cf. **3**, No. 1295.]

The diseases discussed include ringworm and infections by *Rhinosporidium seeberi*, *Candida albicans*, *Actinomyces bovis* [*A. israelii*], *Sporotrichum schenckii*, *Blastomyces dermatitidis*, *Cryptococcus hominis* [*C. neoformans*], *Lutziomyces histosporocellulare* [*Paracoccidioides brasiliensis*], *Aspergillus fumigatus*, *Coccidioides immitis*, and *Histoplasma capsulatum*.

Some of these diseases are mentioned again (pp. 551–554) in a chapt. on dermatoses with ocular manifestations.

1697. Seabury (J. H.) & Dascomb (H. E.). **Experience with amphotericin B for the treatment of systemic mycoses.**—*Arch. intern. Med.*, **102**, 6, pp. 960–976, 1 fig., 1958. [*B.H.*, **34**, p. 894.]

A preparation of amphotericin B combined with sodium desoxycholate buffered with sodium phosphate was found less toxic and more effective than previous preparations.

1698. Eckstein (Z.), Halweg (Halina), Krakówka (P.), & Urbański (T.). **O działaniu fungistatycznym kwasu 3,4-dwuchlorofenoksyacetohydroksamowego na grzyby chorobotwórcze in vitro.** [On the fungistatic effect of 3,4-dichlorophenoxyacetohydroxamic acid on pathogenic fungi *in vitro*.]—*Med. dośw. Mikrobiol.*, **10**, 4, pp. 487–492, 2 fig., 1958. [Engl. summ. *B.H.* **34**: 945.]

0·004–0·5 mg./ml. was inhibitory.

1699. Thiers (H.), Coudert (J.), Colomb (D.), Fayolle (J.), & Moulin (G.). **L'autovaccino-thérapie des affections mycosiques ; technique, indications et accidents.** [Autovaccinotherapy in mycotic infections; technique, indications, and accidents.]—*Bull. Soc. franç. Derm. Syph.*, **65**, 2, pp. 185–186, 1958. [*Biol. Abstr.*, **33**, No. 38519. Also *Lyon med.*, **90**, 47, p. 834, 1958.]

1700. Fegeler (F.). **Nebenwirkungen der Antibioticatherapie vom mykologischen Standpunkt. VII. Parallergische Nebenwirkungen bei Vorliegen von Dermatomykosen. VIII. Einfluß der Antibiotica auf das Wachstum von Pilzen in vitro.** [Side effects of antibiotic therapy from the mycological standpoint. VII. Parallergic side effects in the presence of dermatomycosis. VIII. The influence of antibiotics on fungal growth *in vitro*.]—*Mykosen*, **2**, 1, pp. 26–35; 2, pp. 50–68, 6 fig., 5 graphs, 1959.

At the Hautklinik der Westfälischen Wilhelms-Universität, Münster, the author performed skin tests and serological tests to determine to what extent dermatomycosis can give rise to parallergy against antibiotics. One finding, in line with clinical experience, was that the antigenic relationship between penicillin and dermatophytes leads to an increase of allergic side reactions to the antibiotic when dermatophytosis is present. Another was that following penicillin treatment a patient may react positively to an intracutaneous test with streptomycin, and vice-versa. Allergic reactions to penicillin could often be avoided by examining the patient for dermatophytosis before commencing treatment. If such an infection is present, and antibiotic treatment must, nevertheless, be started, then some other oral antibiotic should where possible be chosen.

The *in vitro* studies on the effect of antibiotics covered a range of dermatophytes, *Candida albicans*, and a European isolate of *Cryptococcus neoformans*. It is

concluded, *inter alia*, that fungal superinfections arising from antibiotic treatment are attributable to suppression of the micro-organisms which normally counterbalance the potentially pathogenic fungi.

1701. Furushiro (K.), Shimizu (K.), Sakai (H.), Minogata (M.), & Fujisawa (T.). **Hygrostatin, a new antibiotic substance.**—*Iyaku Shigen Kenkyusho Nanpo, 1958*, pp. 24–39, 1958. [*Chem. Abstr.*, **54**, 10, col. 10048*b*, 1960.]

From the Inst. of Pharmaceutical Resources, Tokyo, full details are given of the extraction and purification of hygrostatin from the mycelium of a new actinomycete, *Streptomyces hygrostaticus*. Low concs. of hygrostatin inhibited *Aspergillus* spp., *Nocardia asteroides*, *Trichophyton interdigitale*, *Microsporum audouinii*, *Cryptococcus neoformans*, *Blastomyces dermatitidis*, *Histoplasma capsulatum*, *Geotrichum candidum*, *Monosporium apiospermum* [*Allescheria boydii*], *Sporotrichum schenckii*, and *Candida albicans*. $L.D._{50}$ for mice by intravenous injection was 8·6 mg./kg.

1702. Sánchez-Marroquín (A.). **Efecto in vitro de combinaciones de agentes antifúngicos.** [The *in vitro* activity of combinations of antifungal agents.]—*Rev. lat.-amer. Microbiol. (Méx.)*, **2**, 2, pp. 99–110, 1959. [Engl. summ. 22 ref.]

At the Escuela Nacional de Ciencias Químicas, Mexico city, a study was made on the effect of paired combinations of amphotericin B, nystatin, amidomycin, candicidin, filipin, and 4 parabens on the growth of *Paracoccidioides brasiliensis*, *Blastomyces dermatitidis*, *Histoplasma capsulatum*, *Cryptococcus neoformans*, *Monosporium apiospermum* [*Allescheria boydii*], and *Cephalosporium acremonium*. Potentiation was not evident.

1703. Sinski (J. T.), Adrouny (G. A.), Derbes (V. J.), & Jung (R. C.). **Further characterization of hemolytic component of fire ant venom. Mycological aspects.**—*Proc. Soc. exp. Biol., N.Y.*, **102**, 3, pp. 659–660, 1 fig., 1959.

At Tulane Univ. Sch. Med., on a medium consisting of 2% glucose, 1% yeast extract, 1% casamino acids, and 2% agar in distilled water, at 25–30° C., the growth of the following fungi (of 21 tested) was inhibited by the addition to the culture of a small crystal of the venom: *Blastomyces dermatitidis*, *Candida albicans*, *Cladosporium werneckii*, *Cryptococcus neoformans*, *Geotrichum* sp., *Hormodendrum compactum* [*Phialophora compacta*], *H.* [*P.*] *pedrosoi*, *Microsporum gypseum*, *Nocardia asteroides*, *N. brasiliensis*, *P. verrucosa*, *Trichophyton mentagrophytes*, *T. rubrum*, *T. tonsurans*, and *Trichosporon beigelii*.

1704. Morenz (J.). **Untersuchungen über Nährböden zur Ausgangskultur pathogener Pilze.** [Investigations on media for the initial culture of pathogenic fungi.]—*Mykosen*, **2**, 4, pp. 107–114, 1959.

At the Hygiene-Institut der Medizinischen Akademie, Magdeburg, the growth of a range of test fungi (mostly dermatophytes, with some yeasts and diphasic fungi) were compared on a number of different media. On the basis of their findings they propose a medium comprising 2% dextrose, 1% peptone, 0·3% yeast extract, and 2% agar. Blood, where required, is added at 5%, without special adjustment of the pH, which falls in the range 6–6·5. To prevent contamination by moulds Na-desoxycholate (50 mg. %) may be added.

1705. Hinton (Agnes) & Silberg (S. L.). **Use of HeLa tissue-culture medium in the laboratory identification of pathogenic fungi.**—*Amer. J. clin. Path.*, **28**, 6, pp. 618–621, 1957. [11 ref. *B.H.* **33**, p. 523.]

A technique for converting mycelial cultures of *Histoplasma capsulatum*, *Coccidioides immitis*, *Blastomyces dermatitidis*, and *Sporotrichum schenckii* to the yeast phase [cf. **3**, No. 330].

1706 *a*. Sorensen (R. H.), Fiese (M. J.), & Cheu (S.). **Fountain pen ink staining of Coccidioides immitis in wet and fixed clinical specimens.**—*Med. Techn. Bull.*, **8**, 3, pp. 103–108, 4 fig., 1957.

b. Cohen (M. M.). **An easy office procedure for staining superficial fungi with fountain pen ink.**—*Bull. Sch. Med. Maryland*, **43**, 2, pp. 20–21, 1958.

1707. Bisset (K. A.) & Davis (G. H. G.). **The oral actinomycetes.**—*Arch. oral. Biol.*, **1**, pp. 80–86, 1959. [26 ref.]

In this review from Dept Bact., Univ. Birmingham, attention is drawn to the mouth as the normal habitat of a large proportion of the recognizable genera of Actinomycetes. The most important gen., *Actinomyces*, *Leptotrichia*, *Fusobacterium*, and *Nocardia* (only the last having free-living representatives), are briefly considered and the importance of oral actinomycetes is discussed.

1708. Davies (G. R.) & Lynn (R. B.). **Abdominal actinomycosis –report of an unusual case and review of literature on antibiotic therapy.**—*Canad. J. Surg.*, **2**, 3, pp. 305–310, 5 fig., 1959. [Fr. summ.]

The unusual features of infection by a fungus with narrow, branching hyphae and club-shaped processes [? *Actinomyces israelii*] in a 41-yr.-old female patient at Univ. Hosp., Saskatoon, Sask., comprised the location of the abscess in relation to the descending colon; its origin as a result of a perforation of the colon by a spicule of bone; the similarity of the lesion to a malignant tumour; and the occurrence of a solitary liver nodule (focal cirrhosis) resembling a metastasis. A cure was effected by 2 operations and successive courses of penicillin and aureomycin therapy.

1709. Dana Navare (M. M.), Kelkar (S. S.), & Mordecai (J.). **Actinomycotic pericarditis. Report.**—*Indian J. med. Sci.*, **13**, 8, pp. 696–698, 2 fig. (1 facing p. 665), 1959.

A report from the B.J. Medical College, Poona, on a specimen of the heart and left lung infected by (?) *Actinomyces israelii*, demonstrated by histological methods and Gram staining and P.A.S.

1710. Forgács (B.) & Szovátay (G.). **Az actinomycosis kezelése új injekciós készítménnyel.** [Treatment of actinomycosis by injection of a new mercury-arsenic-sodium iodide compound.]—*Mag. Állatorv. Lap.*, **13**, pp. 101–102, 1958. [Engl., Russ. summ. *V.B.* **28**, 12, No. 3901.]

Biniodide of mercury (2·0 g.), sodium iodide (5·0 g.), sodium benzoate (3·0 g.), liquor arsenicalis (30·0 ml.), and distilled water (to 100·0 ml.) injected into the wall or immediate neighbourhood of the lesion in 5 ml. doses at 3-day intervals cured a large proportion of cattle and pigs.

1711. Briceño Maaz (T.). **Caso de muerte por Nocardia brasiliensis.** [A fatal case of *N. brasiliensis* infection.]—*Gac. méd. Carácas*, **66**, 4–6, pp. 107–109, 1958. [*B.H.*, **34**, 895; lungs and pericardial sac.]

1712. Schneidau (J. D.) & Shaffer (M. F.). **Studies on Nocardia and other Actinomycetales. 1. Cultural studies.**—*Amer. Rev. Tuberc.*, **76**, 5, pp. 770–788, 1957. [*B.H.* **33**, p. 394.]

Characters of 51 strs. of *Nocardia*, 10 of *Mycobacterium*, and 5 of *Streptomyces* were evaluated for criteria of specific identification in *Nocardia*.

1713. Dempsey (M.) & Haines (B. M.). **Cutaneous streptothricosis.**—*J. roy. micr. Soc.*, **76**, 4, pp. 156–158, 17 fig., 1958.

The morphological changes which occur in the skin of cattle and goats infected with *Actinomyces* [*Dermatophilus*] *congolensis* are described.

1714. Scheibner (K.). **Das Wachstum von Dermatophyten auf Nährböden mit Zusatz von 4-Chlorthymolnicotinsäureester.** [The growth of dermatophytes on media supplemented with 4-chlorthymol-nicotinic acid ester.]—*Mykosen*, **2**, 4, pp. 134–135, 1 fig., 1959.

1715. Rieth (H.). **Differential-Diagnose der Mikroskopie-Erreger.** [Differential diagnosis of agents of microsporosis.]—*Mykosen*, **2**, 3, pp. 89–96, 17 fig., 1960.

A note from the Universitätshautklinik, Hamburg-Eppendorf, on the differentiation of *Microsporum audouinii*, *M. canis*, *M. gypseum*, and *Trichophyton* [*Microsporum*] *ferrugineum* by characteristics on various media. A key gives the differential characteristics on cooked rice.

1716. Neves (H.). **Iconografia da tinha.** [Illustrations of tinea.]—Reprinted from *Gaz. méd. port.*, **12**, 6, 4 pp., 11 fig., 1959.

Photographs of various clinical forms of tinea from the Clinica Dermatológica Universitaria, Lisbon.

1717. D'Arca (S.). **Rassegna sulla epidemiologia della tricofizie nei vari paesi del mondo.** [An account of the epidemiology of the trichophytoses in the different countries of the world.]—*Nuovi Ann. Ig.*, **8**, 3, pp. 205–240, 1957. [Engl. summ. 178 ref. *B.H.*, **32**, p. 1152.]

A review.

1718. Degos (R.), Rabut (R.), & Rivalier (E.). **Intérêt d'une enquête statistique et épidémiologique nationale sur les teignes ; discussion d'un plan d'étude.** [The interest of a national [French] epidemiological and statistical study on tinea; discussion of a proposed method of study.]—*Rev. Hyg. Méd. soc.*, **5**, 4, pp. 388–392, 1957.

1719. Balabanoff (V. A.). **Der professionelle Charakter mancher Dermatomykosen.** [The professional character of a number of dermatomycoses.]—*Berufsdermatosen*, **6**, 1, 13 pp., 8 fig., 1958. [Germ., Engl., Fr. summ. 10 ref.]

From the Universitätsklinik für Haut- u. Geschlechtskrankheiten, Sofia, the author reports his observations on occupational mycoses in Bulgaria. Such infections are most common among rural communities in contact with cattle. Workers handling mice developed tinea circinata or folliculitis agminata of the hand. Hyperkeratotic and rhagadiform rubrophytosis of the palms, with onychomycosis, chiefly affecting the right hand, were typical of manual workers, housemaids, porters, needlewomen, and gardeners. Perionychia, onychia, and erosio interdigitalis, caused by *Candida* spp., was seen in non-diabetic female domestic workers at climacteric. Trichophytosis [*Trichophyton violaceum*, *T. crateriforme*] of adults, particularly teachers of young children, was important in the spread of tinea capitis in children.

1720. De Meira (M. T. V.), Nogueira (J. F. P.), & Simões (T. S.). **Tinhas humanas em Cabo Verde. I. Estudo etiológico de alguns casos das ilhas da Boa Vista e de S. Nicolau.** [Tinea in Man in Cape Verde. I. Aetiological study of cases in Boa Vista and S. Nicolau.] De Meira (M. T. V.), Nogueira (J. F. P.), & Coito (A. M.). **II. Estudo etiológico de alguns casos da ilha de Santa Antão.** [II. Aetiological study of cases in Santa Antão.] De Meira (M. T. V.) & De Sousa (H. T.), with the technical collaboration of M. A. Coutinho. **III. Agentes etiológicos de Tinea capitis na ilha de S. Vicente.** [III. Aetiological agents of tinea capitis in S. Vincent.]—*An. Inst. Med. trop. Lisbon*, **15**, 4, pp. 867–869; pp. 871–872; pp. 873–877, 1 pl. (2 fig.), 1958. [*B.H.*, **35**, p. 32.]

The dermatophytes isolated included: I. *Microsporum felineum* [*M. canis*] (10),

Trichophyton [*M.*] *ferrugineum* (5); II. *M. canis* (9), *M. ferrugineum* (1); III. *M. canis* (106), *T. acuminatum* [*T. sabouraudii*] (1), *T. rubrum* (1).

1721. Banerjee (A. K.), Rao (Ahalya), & Chakraborty (A. N.). **Observations on the incidence of dermatophyte infections.**—*Bull. Calcutta Sch. trop. Med.*, **6**, 1, p. 9, 1958.

Dermatophytes accounted for 6% of skin infections in 1955–57. *T. rubrum* was most common.

1722. Doby-Dubois (M.), Doby (J. M.), & Deblock (S.). **Complément à l'étude des teignes du Cameroun. II. Étude statistique et épidémiologique.** [Further observations on tinea in the Cameroons. II. Statistical and epidemiological study.]—*Bull. Soc. Path. exot.*, **51**, 6, pp. 935–941, 4 graphs, 1958. [*B.H.*, **34**, p. 1115.]

Between the ages of 4 and 10 yr. more than half the population carries mycotic lesions. Probably everyone is infected sometime in his life [cf. **3**, No. 343].

1723. Jensen (J.) & Gierloff (B. C. H.). **En epidemi of Ringskurv (Microspori).** [An epidemic of ringworm (*Microsporum*).]—*Ugeskr. Læg.*, **119**, 42, pp. 1351–1358, 6 fig., 1 diag., 1957. [*B.H.*, **33**, p. 37.]

An outbreak of *M. canis* infection affecting 11 children and 5 adults in Denmark.

1724. Herrero (F. J.). **Agentes de dermatomicosis en Tucumán.** [Causal organisms of dermatomycosis in Tucumán.]—*Arch. argent. Derm.*, **9**, 1, pp. 39–41, 1959. [Engl., Fr., Germ. summ.]

Of 40 cases studied at Tucumán, Argentina, 24 were scalp infections by *Microsporum canis* (18), *Trichophyton mentagrophytes* (2), *M. gypseum* (1), and *T. tonsurans* (1); 2 were not cultured. Infections of the folds by *Candida*, tinea versicolor [*Malassezia furfur*], tinea corporis (*T. mentagrophytes*, *Epidermophyton floccosum*), and lesions attributed to *Geotrichum* sp. and to *Cladosporium werneckii* are also mentioned.

1725. Mata (L.) & Mata (Grace C.). **Demostración de Microsporum gypseum y Keratinomyces ajelloi en suelos de Costa Rica.** [The finding of *M. gypseum* and *K. ajelloi* in samples of soil in Costa Rica.]—*Rev. Biol. trop. (S. José)*, **7**, 1, pp. 119–123, 1959. [Engl. summ.]

At the Hosp. San Juan de Dios, San José, *M. gypseum* was isolated from 11 and *K. ajelloi* from 1 of 25 soil samples.

1726. Mierzecki (H.) & Walichiewicz (Z.). **Über das Vorkommen der Epidermophytia interdigitalis bei Bergleuten in Niederschlesien. Der Einfluß verschiedener Kohlesorten auf das Wachstum des Kaufmann-Wolf-Pilzes.** [The occurrence of epidermophytia interdigitalis in miners in Low-Silesia. The influence of different sorts of coal on the growth of *Trichophyton interdigitale*.]—*Berufsdermatosen*, **6**, 3, pp. 124–130, 1958. [20 ref. *B.H.*, **33**, p. 1153.]

97% of positive cultures yielded *T. interdigitale* which was also isolated from duckboards in the pithead baths.

1727. Thiers (H.), Colomb (D.), Fayolle (J.), Moulin (G.), & Taine (B.). **Une observation de blépharite mycosique.** [An observation of mycotic blepharitis.] —*Bull. Soc. franç. Derm. Syph.*, **64**, 3, p. 327, 1957. [*B.A.*, **32**, 31391.]

Reports the isolation of *Ctenomyces radians* [*Trichophyton mentagrophytes*] from a 7-yr.-old girl in France.

1728. Zamiechowska-Miazgowa (Mme J.). **Chemical and antigen structure of Trichophyton sulphureum.**—*Bull. Acad. polon. Sci.*, Sér. Sci. biol., **7**, 11, pp. 445–449, 1959.

An investigation at the Sch. Med., Warsaw, demonstrated the chemical similarity of the L_1 and L_3 fractions of *T. plicatile* [**3**, No. 1129] and *T. sulphureum*, the only difference lying in the smaller percentage of protein and higher one of sugar in the latter. Qualitatively, the proteins of these fractions of *T. sulphureum* differ from those of *T. plicatile* in the absence of DL-cysteine, and the sugars in the presence of ribose and uronic acids. The basic divergence appears in the wax-like fraction L_2, which in *T. sulphureum* contains no sugars but more amino acids.

The N fractions of both spp. are polysaccharide-protein complexes. Qualitatively, the proteins of the N. fraction of *T. sulphureum* contain a full set (11–12) of amino acids as compared with 6–8 in *T. plicatile*.

1729. Anderson (I.). **Tr. violaceum infection of the scalp.**—*Brit. Med. J.*, **2**, 5055, pp. 1221–1222, 1957. [*B.H.*, **33**, p. 233.]

Two cases of *Trichophyton violaceum* infection are described from the Leicester Royal Infirmary; one in an Indian girl, the other in an English girl contact.

1730. Piťová (Mme F.), Krauskopf (J.), & Frágner (P.). **Trichophyton violaceum Sabouraud 1902, epidemie v dětském kolektivu.** [*T. violaceum* epidemic in a community of children [in Czechoslovakia].]—*Čsl. Epidem.*, **6**, 2, pp. 107–112, 1957.

1731. Flórián (E.) & Farkas (L.). **Trichophyton (Achorion) gallinae okozta hajasfejbőr mykosis.** [*T. gallinae* the causal agent of hairy scalp mycosis.]—*Bőrgyógy. vener. Szle*, **12**, 1–2, pp. 85–88, 1958.

1732. Götz (H.) & Reichenberger (M.). **Seltene durch Trichophyton Schönleinii (Lebert) Langeron und Milochevitch (1930) und Microsporum canis Bodin (1902) bedingte Infektionen in Deutschland mit Bemerkungen zur Nomenklatur.** [Infections caused by *T. schoenleinii* and *M. canis*, rare in Germany. Some comments on the nomenclature.]—*Hautarzt*, **9**, 5, pp. 203–209, 1958.

1733. Salamon (T.). **Favus des behaarten Kopfes und der Nägel.** [Favus of the hairy scalp and the nails.]—*Mykosen*, **2**, 1, pp. 24–25, 7 fig., 1959.

A series of clinical photographs, mostly of *Achorion* [*Trichophyton*] *schoenleinii* infections.

1734. Jausion, Nadal, Drouet, Benard, Mazabraud, & Menanteau. **Favus généralisé de longue date, à multiples déterminations épidermohypodermiques et lymphoganglionnaires. Expérimentation animale.** [Chronic favus with multiple lesions of the skin and lymph nodes. Animal experimentation.] —*Bull. Soc. franç. Derm. Syph.*, **65**, 3, pp. 337–338, 1958. [*B.A.*, **33**, 22617.]

1735. Touraine (M.). **Sur l'inscription de la teigne favique sur la liste des maladies à déclaration obligatoire.** [Inclusion of favus among the diseases which must be reported.]—*Bull. Acad. nat. Méd., Paris*, **142**, 13–14, pp. 385–387, 1958.

A recommendation that favus (*Trichophyton schoenleinii*), which has increased in France from 10% of ringworm infections in 1900 to 18% today, should be made a notifiable disease.

1736. Otto (W.), Jähnke (G.), & Naumann (W.). **Dermatomykose und Jahreszeit.** [Dermatomycosis and time of year.]—*Dtsch. Gesundheitsw.*, **14**, 5, pp. 247–254, 5 graphs, 1959. [Russ. summ.]

The investigation of 1,664 cases in the Potsdam area of E. Germany during 1954–56

revealed a significant max. in the late summer and autumn and a min. in Feb.–Apr. A particularly close correlation was established between high temp. and humidity and increased frequency of dermatomycoses. The practical consequences in relation to prophylaxis and social hygiene of these and other observations on the etiological factors involved in the seasonal fluctuations of infection are briefly discussed.

1737. Marples (M. J.) & Chapman (E. N.). **Tinea pedis in a group of school-children.**—*Brit. J. Derm.*, **71**, 12, pp. 414–421, 1949. [13 ref.]

At the med. Sch., Univ. Otago, New Zealand, an examination of 387 school children aged 11–15 yr. showed that abnormality of interdigital skin is not necessarily caused by dermatophyte infection. Scaling and maceration of the toespaces were found in 69·3% but a pathogenic fungus was demonstrated in only 23 cases (5·9%) of which 3 were clinically normal. Isolations, from 16 cases, included *Trichophyton mentagrophytes* (12), *T.* spp. (2), *Epidermophyton floccosum* (1) and *Candida albicans* (1).

1738. Desai (S. C.). **Problems of ringworm. A study of clinical, mycological and therapeutic aspects.** –*J. postgrad. Med.*, **5**, 4, pp. 188–196, 12 fig., 1959. [15 ref.]

At the Dept Derm., K.E.M. Hosp., Bombay, the incidence of fungal infections of the skin is 10% of all new cases. Cutaneous infection in adults by *Malassezia furfur* or *Trichophyton rubrum*, and scalp infection in children by *T. violaceum* are most common [**3**, No. 1140].

1739. Chattaway (F. W.), Townsley (J. D.), & Barlow (A. J. E.). **Effects of steroids and related compounds on the growth of dermatophytes.**—*Nature, Lond.*, **184**, 4700, pp. 1731–1732, 1959.

In order to obtain evidence for the role, if any, which steroid hormones play in determining dermatophyte infections the effects on the growth of *Trichophyton rubrum* of 20 such compounds were determined at the Dept Biochem., Univ. Leeds [see below]. From a further experiment with 5 of these compounds against *T. rubrum*, *T. mentagrophytes*, *Epidermophyton floccosum* and *Microsporum canis* it was concluded that while cholesterol and cortisone are non-inhibitory squalene, desoxycorticosterone acetate, and especially desoxycorticosterone are inhibitory.

1740. Jähnke (G.). **Experimentelle Studien über den Einfluß von Hormonen auf das Wachstum pathogener Pilze.** [Experimental studies on the influence of hormones on the growth of pathogenic fungi.]—*Mykosen*, **2**, 1, pp. 7–23, 1959.

At the Klinik und Poliklinik für Haut- u. Geschlechtskrankheiten, Rudolf-Virchow Krankenhaus, Berlin, the author examined macroscopically and microscopically the growth of *Microsporum gypseum*, *Trichophyton interdigitale*, and *T. rubrum* on an agar medium in the presence of a range of hormones. The agar block method [**2**, No. 659] was used for the microscopical studies. Oestrone and androsterone both caused extensive formation of 'racket hyphae' and 'Myzelversporung' [not illustrated; presumably arthrospores], while oestrone also caused the development of 'organes nodulaires'. Diethylstilbene inhibited the growth of all 3 fungi. Hyphae of *M. gypseum* and *T. interdigitale* coiled together to form spirals shortly after touching the agar block, while *T. rubrum* developed hyphae resembling sea tangle [*Fucus* sp.]

Cortisone inhibited *M. gypseum* and *T. interdigitale* [cf. above], and caused the development of numerous chains of conidia. With desoxycorticosterone macroscopic growth was practically nil: there was some growth on the blocks, *T. interdigitale* forming numerous microconidia, and *T. rubrum* many vacuoles. With cholesterine the macroscopic inhibition of growth was as with cortisone: *M. gypseum* and

T. interdigitale produced many chlamydospores and microconidia, and *T. rubrum* formed 'knob-stick' hyphae. Pernaemyl forte promoted the growth of all 3.

1741. Beare (J. M.). **Clinical trial of butylphenamide in the treatment of certain varieties of ringworm.**—*Ulster med. J.*, **27**, 1, pp. 79–85, 1958.

At the Royal Victoria Hosp., Belfast, butylphenamide was most beneficial in the treatment of all *Trichophyton* [*verrucosum* var.] *discoides* infections and of lesions of non-hairy skin caused by *Microsporum canis* and *T. sulphureum*. Only a half of *M. canis* and none of *T. sulphureum* scalp infections responded.

1742. Behl (P. N.) & Kuman (B. D.). **Bradex-vioform in the treatment of fungus and other skin diseases.**—*Indian J. med. Sci.*, **12**, 1, pp. 43–45, 1958.

1743. Bessière (M.). **Guérison rapide de teignes du cuir chevelu à (M. canis) par une pommade acide et iodée.** [Rapid cure of tinea capitis due to *Microsporum canis* by an ointment of [salicylic and benzoic] acids and iodine.]—*Bull. Soc. franç. Derm. Syph.*, **65**, 3, pp. 337–338, 1958. [*B.A.*, **33**, 22610.]

1744. Thorne (N.) & Harvey (K. M.). **A clinical evaluation of the fungicidal properties of 5-chloro-2(p-diethylaminoethoxyphenyl) benzthiazole.**—*Postgrad. med. J.*, **35**, 410, pp. 696–698, 1959.

This is a joint report from the Prince of Wales's General Hosp., Tottenham, and the London Hosp. on the treatment of 22 cases of dermatomycosis with the above-mentioned compound, supplied by Crookes Laboratories Ltd. under the name episol in lotion, cream, or powder form. It proved effective against infection of the glabrous skin by *M*[*icrosporum*] *audouinii* and *M. canis*, and was entirely or partially successful against lesions caused by *T*[*richophyton*] *mentagrophytes*, while those due to *T. rubrum* were improved. Infection of the hair by *M.* spp. and of the nails by *T. rubrum* was refractory to treatment.

1745. Brian (P. W.). **Griseofulvin.**—*Trans. Brit. mycol. Soc.*, **43**, 1, pp. 1–13, 2 graphs, 1960. [57 ref.]

A general review.

1746. **Griseofulvin and dermatomycoses.**—*Arch. Derm., Chicago*, **81**, 5, pp. 649–882, numerous fig., 1960.

This number of the *Archives* is devoted to 41 contributions made to the international symposium on griseofulvin sponsored by Univ. Miami, 26–27 Oct. 1959. The papers (most of which are illustrated and documented) include: Aytoun (R. S. C.), Campbell (A. H.), Napier (E. J.), & Seiler (D. A. L.), Mycological aspects of action of griseofulvin against dermatophytes (pp. 650–656); McNall (E. G.), Biochemical studies on the metabolism of griseofulvin (pp. 657–661); Roth (F. J.) & Blank (H.), The bioassay of griseofulvin in human stratum corneum (pp. 662–666); Weinstein (G. D.) & Blank (H.), Quantitative determination of griseofulvin by a spectrophotofluorometric assay (pp. 746–749); Blank (H.), Taplin (D.), & Roth (F. J.), Electron microscopic observations of the effects of griseofulvin on dermatophytes (pp. 667–680); Emmons (C. W.), Failure of griseofulvin to control experimental systemic mycoses in mice (pp. 700–702); Latapi (F.), Griseofulvin in the treatment of some deep mycoses (pp. 841–848) including success against sporotrichosis (*Sporotrichum schenckii*) [**3**, No. 1855]; Gentles (J. C.) & Barnes (M. J.), A report on animal experiments with griseofulvin. The griseofulvin content of hair (pp. 703–707); and Kaplan (W.) & Ajello (L.), Therapy of spontaneous ringworm in cats with orally administered griseofulvin (pp. 714–723).

In addition development of resistance to griseofulvin by dermatophytes and the

toxicity of griseofulvin to animals and man are treated. There are 15 papers on clinical trials against various types of dermatophyte infections [cf. **3**, No. 1755] and aspects of the discussions are recorded.

1747. Foley (E. J.) & Greco (G. A.). **Studies on the mode of action of griseofulvin.**—*Antibiot. Ann. 1959–1960*, pp. 670–673, 1960.

In further studies at the Schering Corp., Bloomfield, N.J., results were obtained with *Trichophyton* and *Microsporum* spp. which suggested that the fungicidal effect of griseofulvin is exerted under conditions favourable to the active growth of these organisms.

1748. Goode (Patricia). **Vesicular eruption associated with griseofulvin.**—*Lancet*, **2**, 7142, pp. 155–156, 1960.

Serious side effects of griseofulvin when used in treating a woman of 38 with *Trichophyton rubrum* infection of toe-nails and thumb-nail, are described. Under treatment with 1 g. griseofulvin/day, only transient headaches were noted in the 1st 3 weeks. Then an irritating vesicular eruption appeared on the hands, and in spite of treatment with local cortisone and antihistamines by mouth, spread with vesicles and oedema to the arms, face, and neck. The rash cleared in 12 days, after stopping griseofulvin.

1749. McNall (E. G.). **Metabolic studies on griseofulvin and its mechanism of action.**—*Antibiot. Ann. 1959–1960*, pp. 674–679, 1960.

A method of assaying griseofulvin microbiologically, using sensitive strs. of *Microsporum canis* and *M. fulvum* [*M. gypseum*] is described from Univ. Calif. med. Cent., Los Angeles, Calif. The concs. of the antibiotic in man, rat, and mouse after various levels and routes of administration are given. Purine and purine derivatives partially reversed the inhibition of griseofulvin-sensitive fungi.

1750. Rimbaud (P.), Rioux (J.-A.), & Bastide (J.-M.). **A propos du mode d'action de la griséofulvine sur les dermatophytes. Inhibition du pouvoir kératolytique.** [In connexion with the mode of action of griseofulvin on dermatophytes. Inhibition of keratolytic activity.]—*Ann. Derm. Syph., Paris*, **87**, 2, pp. 145–148, 2 fig., 1960.

A report of studies at the Faculté de Médecine, Montpellier, demonstrating the capacity of griseofulvin to inhibit the keratolytic action of *Trichophyton mentagrophytes* on human hair.

1751. Grimmer (H.). **Histopathologie der Onychomykose und ihre Bedeutung für die Griseofulvintherapie.** [Histopathology of onychomycosis and its significance for griseofulvin therapy.]—*Z. Haut- u. Geschlechtskrankh.*, **28**, 11, pp. 365–374, 13 fig., 1 diag., 1960.

The theoretical and practical aspects of the problem are discussed in relation to rate of nail growth, anatomical localization of infection, and the differential growth rates of the plate and the subungual tissue region.

1752. Témime (P.), Tramier (G.), & Castelain (P.-Y.). **Démembrement étiologique des dermites eczématiformes chroniques à l'aide des réponses aux antigènes mycosiques dilués et de l'épreuve du traitement par la griséofulvine.** [Etiological analysis of chronic eczematiform dermatoses by means of responses to dilute mycotic antigens and experimentation with treatment by griseofulvin.]—*Bull. Soc. franç. Derm. Syph.*, **67**, 1, pp. 23–27, 1960.

A promising line of approach to the problem of etiological differentiation of eczematous dermatoses of non-mycotic appearance and complicated diagnosis

appears to lie in the demonstration of sensitivity to epidermophytin and trichophytin at high conc. with delayed readings (48 hr.). The value of the method was confirmed by the results of treatment with griseofulvin in 19 patients suffering from this type of skin disorder, 12 of whom were cured and 2 improved in the course of 2–3 weeks.

1753. Gentles (J. C.). **The treatment of ringworm with griseofulvin.**—*Brit. J. Derm.*, **71**, 12, pp. 427–433, 3 fig., 1959. [24 ref.]

In this paper the author reviews his own earlier work [**3**, Nos. 513, 840] and contributions by other workers, and describes an experiment in which guinea-pigs, artificially infected with *Microsporum canis*, were given a total of 120 mg. griseofulvin, either in a single dose on the 10th day, in 2 doses of 60 mg. on the 10th and 14th days, or in 4 doses of 30 mg. at 48 hr. intervals, commencing on the 10th day. The single dose did not noticeably affect the course of the disease. Animals receiving the 2 doses showed slightly less inflammatory lesions than controls, but their infection persisted until the time of spontaneous cure in untreated animals. In the 3rd group the infection cleared rapidly and completely without inflammation. Eight daily doses of 15 mg. halted tissue invasion, but permitted reinfection.

1754. Greco (G. A.), Moss (E. C.), & Foley (E. J.). **Observations on treatment of fungus infections of animals with griseofulvin.**—*Antibiot. Ann. 1959–1960*, pp. 663–669, 1960.

In experiments at the Biol. Res. Labs., Schering Corp., Bloomfield, N.J., less than 1% of a dose of griseofulvin was excreted in the urine of dogs and guinea-pigs, indicating ready absorption but slow excretion of the antibiotic. In induced *Trichophyton mentagrophytes* lesions in guinea-pigs doses less than 60 mg./Kg. prevented or cured infections when treatment was started on the day infection was induced. Higher dosages were required when treatment was delayed. Griseofulvin was more efficacious in oil suspension than in water, and may be administered orally or subcutaneously.

Records of the successful use of griseofulvin against dermatophyte infections:

1755 *a*. Russell (B.), Frain-Bell (W.), Stevenson (C. J.), Riddell (R. W.), Djavahiszwipi (N.), & Morrison (S. L.). **Chronic ringworm infection of the skin and nails treated with griseofulvin.**—*Lancet*, **1**, 7135, pp. 1141–1147, 1960.

A detailed report of a successful clinical trial at St. John's Hosp. for Diseases of the Skin, London, against *Trichophyton rubrum* infections. Almost all cases of finger-nail lesions improved by the 12th week when only 62% of toe-nail lesions showed improvement. Of 11 patients followed for 1 yr. 6 of 8 with affected finger-nails and 2 of 11 with affected toe-nails were normal.

b. Cowan (M. A.). **Intermittent treatment of Trichophyton rubrum infections with griseofulvin.**—*Brit. J. Derm.*, **72**, 5, pp. 185–187, 1960.

[Royal Infirmary, Sheffield; 15 cases; daily dose and doses on 2 consecutive days in 7 equally effective.]

c. Meara (R. H.). **Tinea capitis treated with griseofulvin.**—*Brit. J. Derm.*, **72**, 5, pp. 169–172, 1 fig., 1960.

[Middlesex Hosp., London; 31 children (*Microsporum audouinii, M. canis, Trichophyton rubrum, T.* [*verrucosum* var.] *discoides, T. violaceum*).]

d. Degos (R.), Rivalier (E.), & Lefort (P.). **La griséofulvine.** [Griseofulvin.] —*Ann. Derm. Syph., Paris*, **87**, 2, pp. 121–144, 11 fig., 1960.

[Hôpital Saint-Louis, Paris; 146 cases (*Achorion* [*Trichophyton*] *schoenleinii, T. violaceum, Microsporum audouinii, M. canis*); cf. **3**, No. 1427].

1755 *e.* Kopp (H.), Kvorning (S. A.), & Marcussen (P. L.). **The treatment of favus with griseofulvin.**—*Brit. J. Derm.*, **72**, 5, pp. 173–178, 1960.

[Finsen Inst., Copenhagen; 8 cases (*Trichophyton schoenleinii*).]

f. Pierard (J.) & Mrozowski (B.). **À propos de quelques cas de microsporie traités par la griséofulvine.** [With reference to some cases of microsporosis treated with griseofulvin.]—*Arch. belg. Derm. Syph.*, **16**, 1, pp. 107–111, 1960. [Flem., Engl. summ.]

[Clinique dermatologique, Univ. Ghent; 6 cases (*Microsporum audouinii*, *Trichophyton rubrum*).]

g. Contreras (F.). **Tratamiento de las dermatomicosis con griseofulvin.** [The treatment of dermatomycosis with griseofulvin.]—*Act. dermosifiliogr.* (*Madr.*), **50**, 8, pp. 501–510, 1959.

[Spain; 19 cases.]

h. Chaves (A. R.) & Abranches (P.). **A griseofulvina no tratamento das tinhas do couro cabeludo (ensaio clínico).** [Griseofulvin in the treatment of tineas of the scalp (clinical experiment).]—*Gaz. méd. port.*, **12**, 6, pp. 667–676, 1959. [Fr., Engl. summ. 17 ref.]

[Faculdade de Ciências, Lisbon; 8 cases (*Microsporum canis*, *Trichophyton tonsurans*, *M. audouinii*, *T. violaceum*).]

i. Chaveriat (A.), Clavié (L. C.), Orusco, Pelbois (F.), & Rollier (R.). **La griséofulvine dans le traitement des teignes et épidermomycoses.** [Griseofulvin in the treatment of tineas and epidermomycoses.]—*Maroc méd.*, **39**, 416, pp. 74–81, 1 pl. (6 fig.), 1960. [58 ref.]

[Casablanca (over 100 cases), Rabat (45), Fez (95); *Trichophyton violaceum*, [*T. schoenleinii*], *T. rubrum*.]

j. Levy-Lebhar (G.), Levy-Lebhar (J. P.), & Herman (M.). **Le traitement des teignes au Maroc par la griséofulvine.** [The treatment of tineas in Morocco with griseofulvin.]—*Maroc méd.*, **38**, 415, pp. 1603–1608, 1959. [Engl. summ. 30 ref.]

[Morocco; 3 adults, 22 children (*Trichophyton schoenleinii*, *T. violaceum*)].

k. Pettit (J. H. S.). **Griseofulvin and favus.** *Brit. J. Derm.*, **72**, 5, pp. 185–187, 1960.

[Univ. Shiraz, Iran; 50 cases (*Trichophyton schoenleinii*).]

l. Desai (S. C.). **Preliminary experiences with griseofulvin for ringworm.**—*Indian J. Derm. Venereol.*, **25**, 3, pp. 93–102, 6 fig., 1959. [16 ref.]

[Dept Derm., K.E.M. Hosp., Bombay; 7 mg./lb. griseofulvin per day for 15–17 days was found inadequate in the treatment of chronic skin infections by *Trichophyton rubrum*.]

m. Robinson (R. C. V.), Robinson (H. M.), & Bereston (E. S.). **Antifungal activity of griseofulvin.**—*Sth. med. J.*, **53**, 1, pp. 73–76, 1960.

[Univ. Md Hosp., Baltimore; 232 cases (*M*[*icrosporum*] *audouinii*, *M. canis*, *T*[*richophyton*] *rubrum*, *T. mentagrophytes*, *E*[*pidermophyton*] *floccosum*).]

n. Reiss (F.), Kornblee (L.), & Gordon (B.). **Griseofulvin (fulvicin) in the treatment of fungous infections of the hair, skin and nails with special reference to mycological changes produced during therapy.**—*J. invest. Derm.*, **34**, 4, pp. 263–269, 4 fig., 1960.

[Dept Derm. Syph., N.Y. Univ. Postgrad. med. Sch.; children and adults (*Microsporum audouinii*, *M. canis*, *Trichophyton tonsurans*, *T. rubrum*).]

1755 *o.* Robinson (H. M.) & Robinson (R. C. V.). **Griseofulvin.**—*Virginia med. Mon.*, **87**, 2, pp. 72–74, 1960.

[Univ. Md Sch. of Med., Baltimore, tinea capitis, onychomycosis (*Microsporum audouinii, M. canis, Trichophyton rubrum, T. mentagrophytes, T. tonsurans, Epidermophyton floccosum*).]

p. Frank (L.), Steiner (K.), Kaufman (J.), & Chiaramonte (J.). **A clinical evaluation and toxicity study of griseofulvin.**—*N.Y. St. J. Med.*, **60**, 8, pp. 1230–1233, 1960.

[St. Univ. N.Y. Downstate med. Center; 133 cases.]

q. Robinson (M. M.). **Griseofulvin therapy of superficial mycoses.**—*Antibiot. Ann. 1959–1960*, pp. 680–686, 1960.

[Washington, D.C.; 52 eases (*Trichophyton, Microsporum, Epidermophyton*). Severe side effects in 2 cases.]

r. Johnson (S. A. M.) & Cameron (G. H.). **Laboratory and clinical observations in the therapy of dermatomycoses with griseofulvin.**—*Antibiot. Ann. 1959–1960*, pp. 687–692, 6 fig., 1960.

[Dept Dermatol., Univ. Wis. Med. Sch.; 32 cases (*Trichophyton rubrum, T. mentagrophytes* and, but inconclusive, *Actinomyces bovis*). Transitory unpleasant side effects were encountered in all the patients.]

s. Goldfarb (N. J.), Rosenthal (S. A.), Back (A.), Borota (A.), Dick (L.), Furnari (Domenica), & Fraser (Catherine). **Dermatomycoses treated with griseofulvin.**—*Antibiot. Ann. 1959–1960*, pp. 693–700, 1 fig., 1960.

[Dept of Dermatology and Syphilology, N.Y. Univ. and the Skin and Cancer Unit, Univ. Hosp., New York, N.Y.; 137 cases.]

t. Behrman (H. T.), Lubowe (I. I.), Mandel (E. H.) & Morse (J. L.). **Griseofulvin therapy of tinea capitis.**—*Antibiot. Ann. 1959–1960*, pp. 701–704, 1960.

[Dept Dermatology, N.Y. med. Coll., Metropolitan med. Center, New York; 100 children (*Microsporum audouinii*). Mild side reactions were observed.]

1756. Pinetti (P.) & Contini (D.). **Interazioni tra germi piogeni e miceti nelle dermatomicosi. I. Influenze esercitate in vitro dallo Stafilococco aureo sullo sviluppo di alcune specie di dermatomiceti.** [Interactions between pyogenic bacteria and fungi in the dermatomycoses. I. The effects exerted *in vitro* by *Staphylococcus aureus* upon the development of some species of dermatophytes.] —*Boll. Soc. ital. Biol. sper.*, **34**, 9, pp. 455–456, 1958. [B.A., **33**, 34374.]

S. aureus produced a thermolabile factor which inhibited dermatophytes under certain conditions.

1757. Esteves (J.) & Antunes (M. M.). **Morphological alterations in parasitized hairs observed in the course of topical treatment of tinea tonsurans of the scalp.** —*Dermatologica* (*Basel*), **115**, 4, pp. 496–501, 1957.

1758. Partridge (Betty M.). **Hair penetration by dermatophytes (with special reference to its use in the diagnosis of Trichophyton rubrum.)**—*Trans. St. John's Hosp. derm. Soc. Lond.*, **42**, pp. 52–58, 1959. [14 ref.]

Studies were made of the saprophytic growth on isolated hairs *in vitro* [cf. **2**, No. 2270] at the Inst. Dermat., London. Using 38 strs. of Gypseum group of *T. mentagrophytes* it was confirmed that penetration occurred by means of wedge-shaped

perforations. Of 33 strs. of *T. rubrum*, 1 atypical str. showed perforation. In the Rosaceum group, 2 strs. tested did not show perforation. In the Crateriforme group, perforation occurred in 10 strs., although slowly. In the Faviforme group, penetration was not observed.

1759. **Second report of the joint WHO/FAO expert committee on zoonoses.**—83 pp., Rome, FAO, 1959.

On p. 51 reference is made to the importance of animal reservoirs of agents of human ringworm, and in particular to the work of La Touche [**2**, No. 2169].

1760. Springer (A. L.). **Trichophyton mentagrophytes as a cause of ringworm in the Dog.**—*Illinois Vet.*, **1**, 1, pp. 18–20, 1958. [*Biol. Abstr.*, **32**, No. 31389.]

First reported case in Illinois.

1761. Janke (D.) & Newig (H.). **Trichophyton verrucosum als Erreger von Trichophytien bei Mensch und Tier in Oberhessen.** [*T. verrucosum* as an agent of trichophytoses of Man and Animals in Oberhessen.]—*Mykosen*, **2**, 3, pp. 75–89, 21 fig., 1 map, 9 graphs, 1959.

Following a review of the lit. the author reports his experience at the Dermatologische Universitätsklinik, Marburg a. d. Lahn with 48 cases, 46 of whom were land workers in regular contact with infected cows. Cows were established as the source of infection in 14 cases, and a horse in 1 case.

Contrary to expectation, thiamine did not stimulate the growth of the fungus in culture. Typical lesions developed in guinea-pigs inoculated by abrasion with a fungal suspension. In cases of deep, but not superficial, trichophytoses fungal anti-bodies could be demonstrated serologically.

1762. Rieth (H.) & El-Fiki (A. Y.). **Die Rinderflechte — ein aktuelles therapeutisches und hygienisches Problem.** [Cattle ringworm—a real therapeutic and hygienic problem.]—*Tierärztl. Wschr.*, **72**, 10, pp. 201–203, 4 fig., 1959. [Engl. summ. 23 ref.]

A popular note on the importance of cattle ringworm, and on the need for close cooperation between doctors and veterinarians in dealing with it.

1763. Kalisz (G. A.). **Hexetidine. A new antifungal agent.**—*Mod. vet. Pract.*, **39**, pp. 48–49, 1958. [*V.B.*, **29**, p. 63]

Hexetidine (bis-1,3-betaethylhexyl-5-methyl-5 amino hexahydropyrimidine) was used successfully for the treatment of calf ringworm.

1764. Fernandez-Baquero (G.) & Trespalacios (F.). **Piedra. Primer caso observado en Cuba.** [Piedra. First case in Cuba.]—*Bol. Soc. cubana Derm. Sif.*, **16**, 1, pp. 21–27, 1959.

Cultures obtained from small, hard nodules on the hairs of an adult man were previously identified as *Trichosporon beigelii* [**3**, No. 993]. Chains and cluster of conidia are described, the previous identification is reconsidered and a new species is described and named *Trichosporon pardi*.

1765. Fernandez-Baquero (G.). **La intradermorreacción con antígeno de Hormodendrum pedrosoi.** [The skin test with antigens of *Phialophora pedrosoi*.]—*Bol. Soc. cubana Derm. Sif.*, **16**, 4, pp. 90–94, 1959. [Engl. summ.]

At the Hosp. C. García, Havana, ether soluble and water soluble fractions were extracted from the mycelial mass of cultures of *P. pedrosoi* previously heated to 120° C. Skin tests were positive in all of 10 patients with chromoblastomycosis due

to undetermined species. Strong reactions lasting up to 25 days were seen. The test was negative in 100 individuals from the city and positive in 5 of 20 persons from rural areas without signs of chromoblastomycosis.

1766. Puig-Fuentes (E.). **Cirugía dermatológica. Cromoblastomicosis.** [Surgical treatment of chromoblastomycosis.]—*Bol. Soc. cubana Derm. Sif.*, **16**, 2–3, pp. 55–61, 1959.

Two cases with lesions in a knee and forearm were successfully treated by excision of the damaged skin and skin grafting [**2**, No. 2354].

1767 *a*. Heuls (J.) & Orio (J.). **Premier cas de chromoblastomycose en Afrique Équatoriale Française avec isolement de la souche.** [First case of chromoblastomycosis in French Equatorial Africa, with isolation of the strain.]—*Bull. Soc. Path. exot.*, **51**, 6, pp. 887–891, 1 pl. (6 fig.), 1958.

b. De Mirandol (P. M.), Segretain (G.), & Bataillard. **Un cas de chromoblastomycose à la Réunion.** [A case of chromoblastomycosis in Réunion.] —*Bull. Soc. Path. exot.*, **51**, 6, pp. 884–887, 1 fig., 1958.

In both cases the pathogen was identified as *Phialophora pedrosoi*.

1768. Mackinnon (J. E.) & Garcia-Zorron (N.). **Amphotericin-B and causal organisms of maduromycosis.**—*Trans. roy. Soc. trop. Med. Hyg.*, **53**, 4, p. 362, 1959.

In *in vitro* experiments at the Fac. Med., Montevideo, Uruguay, amphotericin B was completely inhibitory to 1 str. of *Madurella mycetomi* at 0·1 μg./ml. and to a 2nd str. at 1 μg./ml. and to *M. grisea* (2 strs.), *Phialophora jeanselmei* (2 strs.) and *Cephalosporium falciforme* (3 strs.) at 10 μg./ml., but *Allescheria boydii* (2 strs.) and 1 str. related to *C. falciforme* were only partially inhibited at 100 μg./ml.

1769. Battistini (F.), Briceño-Maaz (T.), & De Briceño-Maaz (Clara). **Caso de pie de madura producido por el Monosporium apiospermum.** [A case of Madura foot caused by *Allescheria boydii*.]—*Gac. méd. Carácas*, **67**, 7–12, pp. 181–186, 3 fig., 1958. [*T.D.B.*, **57**, p. 292.]

1770. Bèzes (H.), Goudolé (E.), & Zinsou (R.). **L'aspect chirurgical des mycétomes à Dakar (à propos de 38 observations).** [Surgical aspects of mycetomas at Dakar: 38 cases.]—*Méd. Afr. noire*, 16–30, 5, 18, pp. 416–419, 13 fig., 1958.

1771. Borelli (D.). **Pyrenochaeta romeroi n. sp.**—*Dermatologia Venezolana*, **1**, 4, pp. 325–327, 1959. [Engl. summ.]

A case of black grained mycetoma of the foot, acquired in Paraguaná, N. Venezuela, is attributed to a new sp. which forms soft, tubular grains, 0·5–1·5 mm. In culture grey, velvety colonies with a whitish periphery and black reverse produce ostiolated pycnidia, 50–165 × 40–100 μ, surrounded by brown setae. Pycnoconidia are subhyaline or yellow 1·5–2 × 0·75–1 μ. The opt. growth temp. is 30° C., the max. below 38° C. The holotype is preserved as str. 151 of the culture collection, Inst. de Medicina Tropical, Caracas, Venezuela.

1772. Bridges (C. H.). **Maduromycotic mycetomas in animals. Curvularia geniculata as an etiologic agent.**—*Amer. J. Path.*, **33**, pp. 411–427, 1957. [*V.B.*, **27**, p. 515.]

Black-grained mycetomas of the feet in 2 dogs (1 caused by *C. geniculata*) and of the coronary band in 1 horse, and white grains in the abdominal cavity of 1 dog are reported from Texas (cf. **2**, No. 1631).

1773. Clayton (Yvonne M.). **The occurrence of Aspergillus fumigatus in respiratory infections.**—*Brompton Hosp. Rep.*, **27**, pp. 251–253, 1958.

Routine sputum samples from 1,700 consecutive patients with various diseases were cultured on Sabouraud dextrose agar at 37° C.; 43% harboured *Candida albicans*; 5% *C. tropicalis*; 5% *Torulopsis glabrata*; 6% *Aspergillus fumigatus*; 3% *A. niger*, *A. nidulans*, *Penicillium* sp., *Paecilomyces* sp., or *Mucor* sp. In cultures at 22° C. *A. fumigatus* was less dominant, while the contaminants *Penicillium* spp. and *Paecilomyces* sp. were more frequent.

It is hoped from such studies to establish the relative importance of fungal contaminants, and of *A. fumigatus* in particular, as transient residents following inhalation; persistent or recurrent allergens in the respiratory tract of asthmatic patients; persistent or recurrent residents in so-called allergic aspergillosis (Hinson *et al.*, *Thorax* **7**, 317, 1952); or an agent of infection at a site where the lung is damaged, e.g. an infected cavity, or mycetoma.

1774. Feijoo (F. N.), Contristano (G. A.), & Albarracin (G. A.). **Urticaria por penicilina y Aspergillus flavipes.** [Urticaria produced by penicillin and by *A. flavipes*.]—*Arch. argent. Derm.*, **9**, 1, pp. 43–46, 1959. [Engl., Fr., Germ. summ.]

In a case of chronic urticaria and allergic oedema after treatment with penicillin, *A. flavipes* was cultivated from the faeces, and a skin test with an extract of this fungus was positive. The authors think that chronicity was due to parasitism by *A. flavipes* and sensitization to this species.

1775 *a*. Monod (O.), Pesle (G.), & Hoffmann (T.). **Das Bronchuserweiternde Aspergillom.** [Aspergilloma enlarging the bronchus.]—*Mykosen*, **2**, 2, pp. 39–50, 10 fig., 1959.

Following a detailed description of the structure and mode of development of aspergillomas, the author describes the difference between them and aspergillosis. An aspergilloma of the bronchus is a solitary fungal tumour, commonly lying in the apex of the lung, and attached to the bronchial wall without penetrating it: the fungus is present in a degraded form. Aspergillosis is a diffuse infection developing from a pre-existent bronchopulmonary lesion.

b. Brunner (A.). **Das sogenannte Aspergillom.** [The so-called aspergilloma.] —*Schweiz. med. Wschr.*, **88**, 23, pp. 559–563, 14 fig., 1958. [12 ref. *B.H.*, **33**, p. 846.]

Describes 6 cases of pulmonary aspergilloma.

c. Le Nouene (J.), Sarremejean (P.), & Secousse (J. P.). **Aspergillomes bilateraux.** [Bilateral aspergillomata.]—*J. franç. Méd. Chir. thor.*, **11**, 3, pp. 274–281, 1957.

d. Golebiowski (A. K.). **Pleural aspergillosis following resection for pulmonary tuberculosis.**—*Tubercle* (*Lond.*), **39**, 2, pp. 111–112, 1958.

Infection of the pleural space following resection for tuberculosis. Successful treatment by thoracoplasty with intrapleural instillations and intravenous injections of 2-hydroxystilbamidine.

e. Atkinson (J .B.) & Atkinson (G. R.). **Lymphosarcoma with pulmonary aspergillosis.**—*Penn. med. J.*, **61**, 10, pp. 1373–1375, 1958.

1776. Herman (C. M.) & Sladen (W. J. L.). **Aspergillosis in Waterfowl.**—*Trans. N. Amer. Wildlife Conf.*, **23**, pp. 187–191, 1958. [*B.A.*, **33**, 22616.]

At Johns Hopkins Univ., Baltimore, Md, less than 1 million spores of *Aspergillus*

fumigatus introduced into 1 posterior thoracic air sac killed less than 50% of the experimental chickens, 10 million killed over 80% and 50 million killed all inoculated chickens. Older birds survived 500 million spores except when in a weakened condition. Chickens usually started dying after 2 days, those surviving 11 days usually fully recovered in 3 weeks.

1777. Hubben (K.). **Case report—Aspergillus meningoencephalitis in Turkeys and Ducks.**—*Avian Diseases*, **2**, 1, pp. 110–116, 1958. [*V.B.*, **29**, p. 63.]

Two outbreaks in turkey poults and one in eider ducklings were associated with nervous symptoms and with inflammatory lesions in the brain and meninges.

1778. Palliola (E.). **Su un caso di aspergillosi bronco-polmonare nel bovino.** [Pulmonary aspergillosis in an Ox.]—*Atti Soc. ital. Sci. vet.*, **12**, pp. 493–497, 2 fig., 1958 [1959]. [Engl., Ger. summ. *V.B.*, **29**, p. 675.]

A broncho-pulmonary infection by *Aspergillus fumigatus* affecting an ox, studied at Univ. Turin.

1779. Graham (J. E. B.) & Ketchell (R. J.). **North American blastomycosis: a Canadian case report.**—*Canad. J. comp. Med.*, **22**, 4, pp. 125–126, 1958.

A fatal *Blastomyces dermatitidis* infection [not cultured] in a dog; possibly contracted in Manitoba.

1780. Ramirez (O.). **Estudio histológico de los cultivos de hongos. Reporte preliminar.** [Preliminary report of the study of cultures of fungi using histopathological procedures.]—*Dermatologia (Méx.)*, **3**, 2, pp. 124–126, 1959.

At the Hosp. Rosales, San Salvador, El Salvador, cultures of several pathogenic fungi on Sabouraud's glucose agar were fixed in a formal-acetic fixative, embedded, sectioned, and stained with gentian violet, brilliant green, Castellani's fungicide solution, etc. The author claims that *Blastomyces dermatitidis* may produce endospores.

1781. Biguet (J.), Havez (R.), & Ky (T. V.). **Les possibilités d'application aux champignons pathogènes de la méthode d'Ouchterlony et de l'immuno-électrophorèse.** [Possibilities of using Ouchterlony's method and immune electrophoresis for pathogenic fungi.—*Mykosen*, **2**, 4, pp. 115–120, 2 fig., 1959.

In this preliminary note the authors state that Ouchterlony's method (*Acta path. microbiol. scand.*, **26**, p. 507, 1949) and the method of Grabar & Williams (*Biochim. biophys. Acta*, **10**, p. 193, 1953) are efficient tools in the study of the antigenic composition of *Candida albicans*. Rabbits were immunized with various *C. albicans* strs., and the immune sera so obtained were tested against a number of *Candida* spp. These methods are held to show greater promise than the slide agglutination method [**3**, No. 1009]. Further work is in progress.

1782. El-Fiki (A. Y.), Rieth (H.), & Bisping (W.). **Nachweis pathogener Hefen in der Tiermedizin.** [Identification of pathogenic yeasts in veterinary medicine.] —*Dtsch. tierärztl. Wschr.*, **66**, 20, pp. 564–567, 4 fig., 1959. [Engl. summ. 15 ref.]

After a brief review of recent progress in veterinary mycology the author recommends culture on rice agar for the rapid identification (in 24 hr.) of *Candida albicans*.

1783. Romero (J.). **Los medios prácticos para el diagnóstico de la candidiasis genital.** [Practical procedures for the diagnosis of genital candidiasis.]—*Rev. esp. Obstet. Ginec. Valencia*, **18**, 105, pp. 169–171, 1959.

The results obtained by direct examination in 10% potassium hydroxide and in smears stained with Giemsa were similar.

1784. Van Uden (N.) & Do Carmo-Sousa (Lidia). **Further studies on the significance of temperature relations and vitamin deficiency patterns in yeast taxonomy. With descriptions of Candida parapsilosis, C. parapsilosis var. intermedia, C. parapsilosis var. querci., nov. var., C. obtusa nov. comb. and C. lusitaniae nov. sp.**—*Port. Acta biol. B.*, **6**, 3, pp. 239–256, 6 fig., 1959.

In further studies at the Instituto Botanico, Univ. Lisbon, [cf. **3**, No. 1027] all of 21 strs. of *C. parapsilosis* were wholly or partially dependent on biotin, and their max. temp. for growth was 40–43° C. All 6 strs. of *C. lusitaniae* were partially dependent on biotin, and dependent on pyridoxin and thiamine, and their max. temp. was 43–45°. These results are further evidence that both max. growth temp. range and vitamin dependence have, at least in certain spp., specific or variety value, i.e. they are not mere strain characters.

1785. Varela (G.), Alonso (A.), & Vazquez (A.). **Presencia de la fracción VII de salmonelas en Candida albicans.** [The presence of fraction VII of Salmonellas in *C. albicans*.]—*Rev. Inst. Salubr. Enferm. trop. (Méx.)*, **19**, 1, pp. 67–68, 1959.

The antigenic fraction VII of the salmonellas was detected in 66 of 72 strains of *C. albicans* and also in a str. of *C. pelliculosa*. It was not found in *C. tropicalis*, *C. pseudotropicalis*, *C. krusei*, and *C. guilliermondii*.

1786. Ata (S.). **Kreuzungsreaktion bei der Hämagglutination zwischen Candida albicans und Mycobacterium tuberculosis.** [Cross reactions between *C. albicans* and *M. tuberculosis* in the haemagglutination test.]—*Zbl. Bakt.*, Abt. 1, 1-5, pp. 100–103, 1957.

At the Bact. Inst., Faculty of Med., Univ. Nagoya, Japan. cross reactions between *C. albicans* and *M. tuberculosis* in the haemagglutination test were taken to indicate the possession of a common antigenic component.

1787. Kozinn (P. J.), Burchall (J. J.), Taschdjian (Claire L.), Wiener (H.), & Numerof (P.). **Preparation of P^{32}-labeled Candida albicans.**—*Amer. J. Dis. Child.*, **98**, 6, pp. 765–767, 1959. [*B.H.*, **35**, p. 449.]

At the Maimonides Hosp., Brooklyn, N.Y., a *C. albicans* str. was labelled with radiophosphate and the radioactivity traced through approximately 120 generations *in vitro*. The organism did not appear to be affected by the radiation and retained its species characteristics. P^{32} labelled *C. albicans* remains detectable in mouse tissue for at least 8 days, while transmission of radioactivity *in vitro* can be traced for 10 days.

1788. Okamoto (M.). **The influence of surface-active agents on the electrophoretic mobility of Candida albicans.**—*Nippon Yakurigaku Zasshi*, **54**, pp. 1291–1300, 1958. [*Chem. Abstr.*, **54**, 10, col. 10048h, 1960.]

A formula is presented from the Nagasaki Sch. Med. for the calculation of the velocity of electrophoretic migration of *C. albicans*. The effect of surface-active agents on mobility was determined by the use of polyoxyethylene alkyl ether, benzalkomium Cl, and Na lauryl sulphate. The fungus moved to the anode from the cathode at pH 3–10 and the migration reversed at 2·5. Mobility was depressed by the addition of increasing concs. of surface-active agents to the fungal suspension. The direction of mobility was not altered by anionic and non-ionic surface-active agents but it was reversed by high concs. of cationic ones.

1789. Nakajima (S.). **Mode of action of datemycin on the growth of Candida albicans. I. Agglutination reaction of C. albicans observed in the presence of**

datemycin.—*Tôhoku J. exp. Med.*, **70**, 2, pp. 103–113, 1 fig., 1959. [*B.H.*, **35**, p. 243.]

The above-mentioned response to an antibiotic isolated from a culture filtrate of *Bacillus subtilis* was restricted to vegetative cells of susceptible strains of the fungus and was further limited to room or blood temp. The opt. pH was near 7. Agglutination was stimulated by the sugars (glucose, galactose, and sucrose) utilized by *C. albicans* and was shown by microscopic examination to be associated with mycelial formation. In a closed slide cell culture system the process was stimulated by a conc. of datemycin as low as 4 mg. l. as compared with a min. of 25 in test tubes. Both the agglutinative and inhibitory properties of the antibiotic were partially reversed by cysteine.

1790. Falcone (G.) & Nickerson (W. J.). **Physiological bases of morphogenesis in fungi. 6. Effect of sulfur-deficiency on growth and cellular division of Candida albicans.**—*G. Microbiol.*, **4**, 2, pp. 105–118, 6 fig., 1957. [26 ref. *B.A.*, **34**, 11065.]

Growth of *C. albicans* on S-containing medium (78 mg. ml.) was compared to that in a S-deficient medium (about 0·04 ml. 100 ml.). Total dry weight was 120 and 23·2 mg. 100 ml., respectively. Growth was filamentous in the presence of S, yeast-like in its absence.

1791. Noguchi (Y.) & Kato (Y.). **Effect of sodium ethylmercurithiosalicylate on succinic dehydrogenase of Candida albicans and its clinical use in dermatomycoses.**—*Yokohama med. Bull.*, **9**, 4, pp. 204–208, 1958. [*B.H.*, **34**, p. 762.]

1792 *a*. Giunchi (G.). **Candidosis following antibiotic therapy.**—*Sci. med. ital.*, **6**, 4, pp. 580–628, 1958. [Numerous ref.] [*B.H.*, **34**, p. 336.]

A review.

b. Giunchi (G.). **Micosi secondarie a trattamenti antibiotici con particolare riguardo alla Candidosi.** [Mycosis secondary to antibiotic treatment with special reference to moniliasis.]—*G. Mal. infett.*, **10**, 1, pp. 53–108, 10 fig., 1958. [Numerous ref.]

1793. Whittle (C. H.) & Gresham (G. A.). **Candida in vitro and in vivo. 1. Clinical aspects. 2. Experimental aspects.**—*Mycopathologia*, **12**, 3, pp. 207–215, 18 fig., 1960. [16 ref.]

In this combined paper from the Dept Path., Univ. Cambridge, Whittle (pp. 207–211) states his belief that *Candida* spp. are mycelial in their invasive phase. The mycelial form is illustrated in camera lucida drawings and photomicrographs of scrapings, mounted in 30% KOH. from skin lesions in which *C. albicans* or *C. tropicalis* were the sole or predominant microorganisms. The close resemblance *in vivo* between *Candida* spp. and dermatophytes is stressed.

Gresham presents evidence, from experimental infection of rabbits, that the pathogenicity of *Candida* spp. depends on their ability to form mycelium *in vivo*. When rabbits are inoculated intravenously with *C. albicans* foci of blastospores are seen in the capillaries of the rena cortex, heart, brain, etc. From these foci invasion is accomplished by penetrating hyphae, there is a drop in renal blood flow, oliguria and raised blood urea, and the rabbit dies. It is suggested that vascular obstruction may be caused by mycelial mats and thrombosis by capsular aggressins. *C. tropicalis*, *C. parapsilosis*, and *C. guilliermondii* do not kill rabbits, though blastospores are present in the capillaries. *C. tropicalis* is lethal for rats and mice, however, and in these infections mycelium and a capsule are found.

1794. Reyes (A. C.) & Reyes (A.). **Studies on Candida albicans infection in Filipino children. I. Occurrence in the normal mouth. II. Prevalence of oral moniliasis.**—*Acta med. philipp.*, **13**, 1–4, pp. 147–150, 151–155, 1956 [1957]. [*Biol. Abstr.*, **32**, No. 24097–8.]

Of 509 children with normal mouths, 162 (31·8%) yielded *Candida* spp. of which 119 (21·4%) were *C. albicans*. Of 68 children with oral lesions suggestive of *C. albicans*, 39 (57·35%) yielded *Candida* spp. of which 89·7% were *C. albicans* and 10·3%, *C. tropicalis*.

1795. Andleigh (H. S.). **Investigations into the role of fungi in pulmonary diseases.** —*Mycopathologia*, **12**, 4, pp. 278–282, 1960. [Germ. summ.]

At the S.M.S. med. Coll., Jaipur, India, cases of chronic pulmonary disease (bronchiectasis, lung abscess, tuberculosis, malignancy of lung etc.) not responding to routine treatment were investigated to determine whether fungi were concerned in their etiology.

Examination of sputa and bronchial aspirates revealed fungi in 9 of 32 cases of non-tuberculous disease (*Candida albicans*, 8; *Actinomyces bovis*, 1) and in 2 of 10 tuberculous cases (*Candida albicans*). All strs. of *C. albicans* were sensitive to nystatin [mycostatin] at 50 μg./ml. *in vitro*, and 2 cases treated with tablets improved rapidly.

1796. Herpay (Z.). **Die Lungenmykose Neugeborener.** [Pulmonary mycosis in the newborn.]—*Mykosen*, **2**, 3, pp. 97–101, 3 fig., 1959.

In the course of autopsies at the Universitätsinstitut für Gerichtliche Medizin, Debrecen, Hungary, on 20 infants who had died within a few days of birth, *Candida albicans* was isolated in 3 cases from the lungs and other organs. The author considers that moniliasis in the newborn can result from infected vaginal secretions during birth.

1797. Hogewind-de Nijs (J. J.) & Hogewind (F.). **Röntgenologische afwijkingen van de slokdarm, veroorzaakt door Candida albicans.** [Abnormal radiography of the oesophagus due to *C. albicans*.]—*Ned. T. Geneesk.*, **101**, 28, pp. 1325–1326, 2 fig., 1957. [*B.H.*, **32**, p. 955.]

An infection (probably caused by prolonged use of ACTH) in a 40-yr.-old woman with lupus erythematosus.

1798. Colmeiro-Laforet (C.). **Vaginitis micóticas consecutivas a tratamientos con antibióticos.** [Mycotic vaginitis after treatment with antibiotics.]—*Rev. Confed. méd. panamer.*, **6**, pp. 10–11, 1959.

A review.

1799. Silveira (J. S.). **Ensaios clínico-experimentais com tricomycina (cabimicina) em ginecomicopatologia.** [Clinical experimental studies with trichomycin in genital fungal infection in Women.]—*Rev. Ginec. Obstet.* (*Rio de J.*), **105**, 4, pp. 439–464, 13 fig., 1959. [Span., Fr., Engl. summ. 36 ref.]

At the Instituto de Micologia, Univ. Recife, a 10-day course of trichomycin (cabimycin), consisting of 2 vaginal tablets (50,000 units each) and 3 tablets by mouth (50,000 units each) daily, was given to a total of 109 women with trichomonal and/or yeast infection of the vagina. Yeast infections (*Candida albicans*, *C. guilliermondii*, *C. intestinalis*, *C. krusei*, *C. parapsilosis*, *C. renkauffii*, *C. scottii*, *C. tropicalis*, *Cryptococcus laurentii*, *C. albidus*, *Rhodotorula mucilaginosa*, *R. glutinis*, *Trichosporon cutaneum*, and *Torulopsis glabrata*) were all cured, as were 87·5% of trichomoniasis alone. There were 2 cases of intolerance. The fungi are illustrated.

1800. Di Egidio (M.). **Micosi scroto-peniena da 'Candida (Monilia) albicans'.** [Mycosis of scrotum and penis due to *C. albicans*.]—*Arch. ital. Sci. med. trop.*, **39**, 11, pp. 677–684, 5 fig., 1958. [11 ref. *B.H.*, **34**, p. 441.]

1801. Mehnert (B.) & Mehnert (H.). **Yeasts in urine and saliva of diabetic and nondiabetic patients.**—*Diabetes*, **7**, 4, pp. 293–297, 1958.

1802. Imai (N.), Kamimura (T.), Tabuchi (K.), Ueda (M.), Takao (N.), & Tozawa (M.). [*Candida* species in the faeces of Dogs.]—*Bull. Azabu vet. Coll. Japan*, **5**, pp. 83–91, 1958. [In Jap. Fr. summ.]

1803 *a*. Corsico (G.). **Sui reperti morfopatologici di una malattia delle mucose dei bovini successiva a mastite micotica da Candida.** [On the morphopathological findings in a disease of the mucous membrane of Cattle following mycotic mastitis due to *Candida*.]—*Atti Soc. ital. Sci. vet.*, **12**, pp. 365–369, 1958. [Engl., Fr. summ. *V.B.*, **30**, p. 64.]

Candida sp. was isolated from milk and glands of 29 cows with acute mastitis following intramammary penicillin treatment.

b. Sipka (M.). **Candida tropicalis kao uzročnik mastita kod krava.** [*Candida tropicalis* as the cause of bovine mastitis.]—*Vet. Glas.*, **11**, pp. 747–751, 1957. [In Croat. Germ. summ. *V.B.*, **28**, p. 56.]

1804. Mackinnon (J. E.). **Levadura del raton y de la rata.** [The yeast of the Mouse and Rat.]—*Arch. Soc. Biol. Montevideo*, **24**, 1, pp. 43–48, 1959. [Engl. summ. 6 ref.]

At the Inst. de Higiene, Montevideo, Uruguay, *Torulopsis pintolopesii* [**2**, No. 284] was isolated from the glandular part of the stomach of 58 adult male and female, white and grey mice and from the abdominal lymph nodes of 8 of 53 mice (15%). A gastrointestinal irritation experimentally produced by infestation with *Trichinella spiralis* did not favour the invasion of the lymph nodes. The yeast was also found in the stomachs of the 2 white rats examined [**3**, No. 177].

1805. Batista (A. C.) & Silveira (J. S.). **Uma variedade nova de Endomycosis mali (Lewis) Dekker assinalada sôbre fezes humanas.** [A new variety of *E. mali* found in human faeces.]—*Rev. Ass. méd. bras.*, **5**, 5, pp. 353–354, 1959. [Engl. summ.]

At Univ. Recife, Brazil, a yeast identified as *E. mali* has been cultivated from human faeces. The yeast is described as var. *faecalis* because a ridge was seen round the ascospores, which are smaller than those of *E. mali*.

1806. Batista (A. C.), Silveira (J. S.), & Silveira (G. L.). **Um novo Trichosporon isolado do apéndice cecal humano.** [A new species of *Trichosporon* isolated from the human appendix.]—*Rev. Ass. méd. bras.*, **5**, 5, pp. 351–352, 1959. [Engl. summ.]

At Recife, Brazil. a yeast-like fungus was isolated from the appendix of a man with chronic appendicitis. Hyphae were seen in the wall of the appendix. Cultures, obtained on Sabouraud medium with achromycin, were radiate and cream coloured, showing blastospores and arthrospores. Ethanol was utilized and glucose fermented. Other sugars and potassium nitrate were not assimilated. The species is considered new and named *T. appendiculare*.

1807. Lavalle (P.). **Coccidioidomicosis en México.** [Coccidioidomycosis (*Coccidioides immitis*) in Mexico.]—Rep. from Mem. III Congreso Ibero Latino Americano de Dermat., México, pp. 198–202, 7 fig., 1959. [32 ref. *T.D.B.*, **57**, p. 292].

A review.

1808. Winn (W. A.). **The use of amphotericin B in the treatment of coccidioidal disease.**—*Amer. J. Med.*, **27**, 4, pp. 617–635, 6 fig., 1959.

Observations on cases of *Coccidioides immitis* infection (9 disseminated, 6 meningitis, 7 skin granulomas and abscesses) treated with amphotericin B at Tulare—Kings Counties Hosp., Springville, Calif.

1809. Timmes (J. J.) & Baum (G. L.). **Surgery on pulmonary coccidioidomycosis.**—*Dis. Chest*, **31**, 3, pp. 308–315, 1957.

Reports of 7 cases of this disease, operated on at the U.S. Naval Hosp., St. Albans, N.Y. All made a good recovery, though in 3 there were serious post operative complications.

1810. Reed (R. E.). **Canine coccidioidomycosis.**—*Sthwest. Vet.*, **12**, 1, pp. 26–32, 1958. [*V.B.*, **29**, p. 239.]

Describes the symptoms and diagnosis of *Coccidioides immitis* infection in dogs, a common disease in SW. U.S.A.

1811. Rose (F. C.), Grant (H. C.), & Jeanes (A. L.). **Torulosis of the central nervous system in Britain.**—*Brain*, **81**, 4, pp. 542–555, 1958.

1812. Jensen (K. O.). **Cryptococcosis. Oversigt og et pulmonalt tilfælde.** [Cryptococcosis. A survey and a report of a case with pulmonary involvement.]—*Nord. Med.*, **60**, 48, pp. 1722–1725, 8 fig., 1958. [Engl. summ. *B.H.*, **34**, p. 225.]

1st reported case of *Cryptococcus neoformans* infection in Denmark, in a 28-yr.-old farmer who recovered completely and spontaneously.

1813. Vassiliadis (P.) & De Antas Videira. **Nouveau cas de cryptococcose au Congo belge.** [A new case of cryptococcosis in the Belgian Congo.]—*Ann. Soc. belge Méd. trop.*, **39**, 5, pp. 753–758, 1959. [Flem., Engl., Germ., Span. summ.]

The 4th case of infection by *Cryptococcus neoformans* in the Belgian Congo, involving a 9-yr.-old girl, is reported from the Institut de Médecine Tropicale, Léopoldville. The present isolate produced enormous capsules on Hanks's medium, with or without HeLa cells. Profuse and rapid growth was also made on bacto-tellurite-blood, which might prove useful for the isolation of the fungus from contaminated specimens.

1814. Muir (C. S.) & Ransome (G. A.). **Cryptococcus neoformans meningitis.**—*Med. J. Malaya*, **14**, 2, pp. 125–134, 12 fig., 1960.

Report on the 3rd case in Singapore, a 10-yr.-old Chinese boy, with observations on the clinical course, post-mortem, and histology, and general information on the fungus, pathology, and treatment, followed by a discussion.

1815. Gonzalez (A.), Fuentes (E.), & Perez-Tamayo (R.). **Cryptococcosis generalizada. Presentación de un caso.** [Disseminated cryptococcosis. Report of a case.]—*Pren. méd. mex.*, **24**, 9, pp. 373–378, 1959. [Engl. summ.]

The main symptoms of this Mexican case were intestinal. The autopsy showed peritonitis, lesions of the intestinal tract, lymph nodes, spleen, kidneys, liver, and lungs. Lesions were also seen in the meninges and the brain but no symptoms were attributed to these lesions. The diagnosis of *Cryptococcus neoformans* infection was made from tissue sections.

1816. Corsico (G.). **Istopatologia della mastite sperimentale da Debaryomyces neoformans.** [Histopathology of experimental *Cryptococcus neoformans*

mastitis.]—*Atti Soc. ital. Sci. vet., Rimini-Ravenna* 1957, 11, pp. 525–530, 1958. [Engl., Fr. summ. *V.B.*, **28**, p. 634.]

In cattle and goats.

1817. Sweany (H. C.). (Editor). **Histoplasmosis.**—xiv+538 pp., illus., Ill., Springfield, Charles C. Thomas. (Oxford, Blackwell Scientific Publications Ltd.; Toronto, Ryerson Press), 1960. 116*s*.

This comprehensive and useful review includes chapters on the history of histoplasmosis (by G. L. Baum), the morphological and physiological characteristics of *Histoplasma capsulatum* (L. Pine), saprophytic reservoirs (C. W. Emmons), geographical distribution (L. Ajello), resistance to histoplasmosis (S. B. Salvin), epidemiology (M. L. Furcolow), diagnostic procedures (H. W. Larsh), serology (D. J. Tenenberg), skin (C. E. Palmer & Phyllis Q. Edwards,) identification in smears and sections (R. W. Mowry & J. K. Frenkel), pathogenesis in animals (J. J. Procknow) and in man (H. C. Sweany), the primary lesion (J. Schwarz), pathology of localized lesions (T. F. Puckett), general pathology (H. C. Sweany), roentgenographic aspects (F. N. Silverman), clinical types (M. L. Furcolow), diagnosis (W. D. Sutliff), differential diagnosis (H. Pinkerton), medical management (J. L. Yates, H. V. Langeluttig, & C. A. Brasher), surgery (J. W. Polk), and the place of histoplasmosis in the practice of medicine (J. H. Seabury). Each chapt. has a select bibliography and there are author and subject indexes [cf. **2**, No. 2073].

1818. Rubin (H.), Furcolow (M. L.), Yates (J. L.), & Brasher (C. A.). **The course and prognosis of histoplasmosis.**—*Amer. J. Med.*, **27**, 2, pp. 278–288, 6 fig., 1959. [31 ref.]

Three clinical types of histoplasmosis [*Histoplasma capsulatum*] were recorded at Univ. Kansas Sch. Med., Kansas City, and the Mo. State Sanatorium, Mount Vernon, on analysis of 123 culturally proved cases. (*a*) Acute, clinically severe, pulmonary histoplasmosis [**3**, No. 1349] in 8 patients, who exhibited diffuse nodular densities (7) or pneumonic infiltration (1); all were cured. (*b*) Acute progressive, or disseminated, histoplasmosis in 25 cases (19 lethal) was distinguished by fever and often involved organs other than the lungs, particularly the adrenals, spleen, liver, and lymph nodes; mucous membrane lesions of the larynx, mouth, and tongue were also found (5); histoplasmin skin tests were negative in 11 patients. (*c*) Chronic pulmonary histoplasmosis in 90 cases (16 lethal) was characterized by the cavities in the upper lobes (78); 18 patients were negative to histoplasmin, and more than a half negative to tuberculin tests. With the chronic type remissions and exacerbations sometimes occur and prognosis is poor in untreated patients.

1819. Quenum-Ahina (C.). **L'histoplasmose africaine à grandes formes.** [Histoplasmosis due to the African large form of the parasite.]—95 pp., Paris: Amédée Legrand & Cie., 93 Boulevard Saint-Germain, 1958. [*B.H.*, **34**, p. 763.]

In this thesis consisting of a review of the published records of proved or suspected cases of the large parasite form of histoplasmosis, *Histoplasma duboisii* [**3**, No. 577] findings are summarized from 20 cases (9 confirmed by culture) reported during 1919–57. To these 1 suspected case not confirmed by culture is added.

1820. Jarniou (A. P.), Kerbrat (G.), Moreau (A.), Duval, & Drouchet (E.). **Histoplasmose pulmonaire africaine avec suppuration diffuse apparue après une année d'évolution.** [African type pulmonary histoplasmosis, with diffuse suppuration after one year.]—*Bull. Soc. méd. Hôp. Paris*, **74**, 32–33, pp. 918–927, 1958. [See **3**, No. 1214].

1821. Bersack (S. R.), Howe (J. S.), & Rabson (A. S.). **Inflammatory pseudopolyposis of the small and large intestines with Peutz-Jeghers syndrome in a case of diffuse histoplasmosis.**—*Amer. J. Roentgenol.*, **80**, 1, pp. 73–78, 1958.

1822. King (H. C.) & Cline (J. F.). **Histoplasmosis involving the larynx.**—*Arch. Otolaryng.*, **67**, 6, pp. 649–654, 1958.

1823. Nelson (N. A.), Goodman (H. L.), & Oster (H. L.). **The association of histoplasmosis and lymphoma.**—*Amer. J. med. Sci.*, **233**, 1, pp. 56–65, 1957. [Interlingua summ. 23 ref.]

A report of 2 cases of histoplasmosis associated with malignant lymphoma bringing the total number of reported cases to 25.

1824. Fatorelli (A.). **Histoplasmose ocular. Apresentação de caso.** [Ocular histoplasmosis. Presentation of a case.]—*Rev. bras. Oftal.*, **18**, 4, pp. 349–359, 1959. [Engl. summ. 15 ref.]

Among the reasons advanced for the hypothesis that *Histoplasma capsulatum* was the etiological agent in a case of uveitis in a 50-yr.-old negress, reported from the Faculdade de Ciências Médicas, Univ. Rio de Janeiro, are hypersensitivity to histoplasmin and pulmonary manifestations suggestive of histoplasmosis.

1825. Rangel (G. E.), Barnola (J.), Torres (Graciela), Gomez (E.), & Villalobos-Montiel (H.). **Histoplasmosis diseminada mortal en un niño de cinco meses.** [Fatal disseminated histoplasmosis in a 5-month-old Infant.]—*Arch. venez. Pueric.*, **22**, 71, pp. 19–31, 1959.

A case from the village of Chuspita, Miranda, Venezuela. Diagnosis was made by direct examination and culture of bone-marrow.

1826. Li (Y.) & Ch'en (P. C.). **Histoplasmosis ; report of a case.**—*Chin. med. J.*, **77**, 2, pp. 148–150, 1958.

The 1st reported case from China (in a 52-yr.-old Chinese man), probably contracted in Singapore.

1827. Herron (J. T.) & Furcolow (M. L.). **Histoplasmosis in Arkansas.**—*J. Ark. med. Soc.*, **55**, 5, pp. 194–196, 1958.

An epidemic of histoplasmosis [*Histoplasma capsulatum*] is reported by Ark. State Board of Health, Little Rock, and Univ. Kansas Sch. Med., Kansas City, to have broken out in Baxter county, where 150 children in a school were infected; in Mountain Home 36 school children were clinically ill and 150 of 386 were serologically positive and or positive chest X-ray. Histoplasmin tests were positive in approx. $\frac{2}{3}$ of the children. Examination of 3,461 sera from the State Tuberculosis Sanatorium, Booneville, showed positive histoplasmin in 151 (4·3%), though only 15 were proved by culture (13 *Histoplasma*, 2 *Blastomyces* [*dermatidis*]).

1828. Kolb (K. P.) & Campbell (Charlotte C.). **A family outbreak of histoplasmosis. I. Clinical, laboratory, and follow-up studies.**

Campbell (Charlotte C.). **II. Epidemiologic studies.**—*J. Lab. clin. Med.*, **50**, 6, pp. 831–840, 5 fig.; pp. 841–848, 1957. [*B.H.*, **33**, p. 346.]

I. All 4 members (aged 14–33 yr.) of a family in Montgomery Co., Md, were affected in varying degrees.

II. *H. capsulatum* was isolated 4 yr. after the outbreak, from 3 of 6 samples of soil from a hen coop from which manure had been taken prior to the epidemic.

1829 *a*. De Montemayor (L.), Heredia Osio (Blanca), & De Bellard Pietri (E. P.). **Aislamiento del Histoplasma capsulatum en el suelo de dos cavernas en Venezuela. Nuevas técnicas de investigación por 'Metodo de Flotación'.**

[Isolation of *Histoplasma capsulatum* in the soil of two caves in Venezuela. A new technique, the 'flotation method'.]—*Rev. Sanid. Asist. soc.*, **23**, 1–2, pp. 39–54, 2 diag., 5 pl. (12 fig.), 1958. [Engl. summ. 29 ref. *B.H.*, **34**, p. 826.]

H. capsulatum was isolated from 2 of 7 caves by direct examination (flotation method) and by mouse inoculation [cf. **3**, No. 754h].

1829 *b*. Aguirre-Pequeño (E.). **Aislamiento de Histoplasma capsulatum del guano de merciélago en cuevas del noreste de México.** [Finding *H. capsulatum* in droppings of Bats in caves of NE. Mexico.]—*Gac. méd. Méx.*, **89**, 4, pp. 243–253, 1959.

H. capsulatum was isolated from the soil of 5 caves and abandoned mines inhabited by bats [**3**, No. 751, 752]. Tuberculated chlamydospores were seen in the soil.

The paper is followed (pp. 254–257) by a commentary by A. González-Ochoa who suggests that only workers who are histoplasmin positive should be admitted to the caves and mines.

c. Paula (A.). **Microepidemia de histoplasmose.** [A small epidemic of histoplasmosis.]—*Rev. Serv. Nac. Tuberc.* (*Rio de J.*), **3**, 9, pp. 11–20, 1959. [Engl. summ.]

Twelve children, an adult man, and a dog became ill 10–12 days after exploring a cave in the State of Rio Janeiro, Brazil. High fever, cough, dyspnoea and retrosternal burn sensations were the main symptoms. The radiographs showed parahilar infiltrates and miliary nodules. A biopsy of the lung permitted the diagnosis of histoplasmosis (*Histoplasma capsulatum*) and miliary nodules were seen also in the diaphragm. The 1 patient tested was strongly histoplasmin positive. Spontaneous recovery was observed. The dog was killed.

1830 *a*. El-Warraki (S.). **A histoplasmin survey in Egyptian Army Recruits.**—*J. Egypt. med. Ass.*, **42**, 9, pp. 500–504, 1959.

Only 4 of 4,300 reacted positively to an intradermal test at the Ain Shams Univ. Hosp., Cairo. All 4 were also tuberculin positive and the stools of 3 contained parasites (2 *Ascaris*, 1 *Strongyloides*).

b. Ekmen (H.). **Türkiyede Histoplasmin hassasiyeti üzerinde bir čališma.** [A survey for histoplasmin sensitivity in Turkey.]—*Türk Ij. tecr. Biyol. Derg.*, **18**, 2–3, pp. 158–167, 1 map, 1958. [Engl. summ. 20 ref. *B.H.*, **34**, p. 763.]

The reaction rate was generally 5·3–5·6% but 39·5% in 1 village.

c. Daoud (K. A.) & Schwabe (C. W.). **A skin-test survey for histoplasmosis and coccidioidomycosis in the Middle East.**—*Amer. J. trop. Med. Hyg.*, **7**, 6, p. 643, 1958. [B.H., **34**, p. 337.]

None of a total of 2,030 Middle Eastern nationals was positive to histoplasmin or coccidioidin.

1831. Farrell (R. L.). **Experimental canine histoplasmosis.**—*Diss. Abstr.*, **20**, 6, pp. 2233–2235, 1959.

At Ohio State Univ. it was found that the yeast phase of *Histoplasma capsulatum* is more pathogenic for dogs than the mycelial phase, and that tracheal inoculations were more effective than gastric inoculations. Neither aureomycin nor streptomycin altered the course of the disease produced by the mycelial phase of the fungus. Intratracheal inoculation of dogs on cortisone therapy with mycelial growth always produced acute histoplasmosis but dogs previously inoculated with the same strain developed an immunity, which, however, was inadequate against a large dose of the yeast phase. Sodium caprylate may inhibit *H. capsulatum in vivo* when administered before, but not after, infection.

1832. Schwarz (J.). **The pathogenesis of histoplasmosis.**—*Trans. N.Y. Acad. Sci.*, **20**, 6, pp. 541–548, 1958. [*B.A.*, **32**, 41340.]

1833. Mackinnon (J. E.) & Conti-Díaz (I. A.). **Miositis en la histoplasmosis experimental.** [Myositis in experimental histoplasmosis.]—*An. Fac. Med. Montevideo*, **44**. 5–6. pp. 608–609. 1959. [Engl. summ.]

At the Instituto de Higiene, Univ. Montevideo, 5 mice were inoculated intravenously with the yeast-phase of *Histoplasma capsulatum*. Visceral and lymphatic lesions were seen. In 2 animals lesions were noted in the diaphragm, the myocardium and the tongue and in 1 animal the skeletal muscles also were involved. In 1 animal a small ulcer of the tongue was evident and this lesion had a wide nodular base involving the underlying muscles.

1834. Cozad (G. C.), Larsh (H. W.), & Romig (W. R.). **The effect of various substances on the respiration of Histoplasma capsulatum.**—*Proc. Okla. Acad. Sci.*, **39**, pp. 99–106, 1 graph, 1959.

At the Dept Bact., Okla State Univ., Stillwater, conventional manometric techniques were used in a study of the oxidative metabolism of yeast phase *H. capsulatum* (the Dillard and Scritchfield isolates, both obtained from M. L. Furcolow). All tricarboxylic acid cycle intermediates, except citric, cisaconitic, and isocitric acids, stimulated O uptake, as did the L-forms of all amino acids tested, except L-arginine. D-forms of these acids were without effect. Sodium salts of the lower fatty acids (acetic to butyric), and also glucose, mannose, fructose, xylose, and maltose, but not lactose, sucrose, and arabinose, stimulated respiration.

1835. Sheldon (W. H.) & Bauer (H.). **Activation of quiescent mucormycotic granulomata in Rabbits by induction of acute alloxan diabetes.**—*J. exp. Med.*, **108**, 1, pp. 171–178, 1958. [*V.B.*, **28**, p. 700.]

Experimental subcutaneous infection in rabbits by *Rhizopus oryzae* normally healed spontaneously, but was activated in animals showing acetonuria following induction of acute alloxan diabetes.

1836. Dillon (M. L.), Sealy (W. C.), & Fetter (B. F.). **Mucormycosis of the bronchus successfully treated by lobectomy.**—*J. thorac. Surg.*, **35**. 4, pp. 464–468, 6 fig., 1958.

The 1st report of pulmonary resection in pulmonary mucormycosis. The patient, a 20-yr.-old negro woman, was apparently well during the 6 months that her progress could be followed.

1837. Silveira (E. D.). **Paracoccidioides brasiliensis Almeida 1930. Alguns aspectos morfológicos e culturais.** [*P. brasiliensis*. Some morphological and cultural aspects.]—*Rev. Méd. Rio Grande do Sul*, **16**, 88. pp. 203–221, 1959.

Several aspects are reviewed. The author believes that after a period of multiple budding a process of endosporulation develops. He also affirms that the fungus can be kept for 8 yr. on leaves placed in glycerine-peptone-testicle broth.

1838. Miranda (J. L.) & Machado (J.). **Considerações relativas à blastomicose sul-americana. Análise do diagnóstico micológico.** [Considerations on South American blastomycosis. The mycological diagnosis.]—*Hospital (Rio de J.)*, **56**, 4, pp. 579–593, 1959. [Engl. summ.]

Diagnosis of S. American blastomycosis (*Paracoccidioides brasiliensis*) by the examination of fresh pus, sputum, exudate from ulcers, etc. is usually easy [cf. **3**, Nos. 1527–8]. The material is examined stained with Giemsa. Biopsies and tissue sections are not necessary. Cultures should be obtained whenever possible. According to the authors the practitioners did not suspect the disease in many cases.

1839. Londoño-Gonzáles (F.). **La blastomicosis sudamericana en Colombia.** [South American blastomycosis in Colombia.]—*Rev. Fac. Med., Bogotá*, **25**, 3–4, pp. 108–118, 1957. [*T.D.B.*, **55**, p. 941.]

A review with details of 3 new cases.

1840. Angulo-Ortega (A.). **Las micosis bronco-pulmonares en el Departamento de Anatomía Patológica del Instituto Nacional de Tuberculosis.** [Bronchopulmonary mycoses registered at the department of pathology of the National Institute of Tuberculosis.]—*Rev. Tisiol. Neumol., Carácas*, **1**, 1, pp. 101–108, 1959.

Since 1945 there have been 99 cases of S. American blastomycosis [*Paracoccidioides brasiliensis*] (82 during the last 5 yr.), 5 of cryptococcosis [*Cryptococcus neoformans*], 3 of nocardiosis, 2 of aspergillosis, 1 of actinomycosis, and 10 of histoplasmosis [*Histoplasma capsulatum*] (only 1 disseminated).

1841. Cunha (J. C. P.), Segal (J.), Sampaio (S. A. P.), & Castro (A. C. M.). **Forma linfático-tegumentar da blastomicose sul-americana complicada com disseminação hematogénica do Paracoccidioides brasiliensis.** [Lymphatic-cutaneous type of South American blastomycosis followed by the haematogenous dissemination of *P. brasiliensis*.]—*Rev. Hosp. Clín. Fac. Med. S. Paulo*, **14**, 4, pp. 279–287, 1959. [Engl. summ.]

A case report. The patient was hospitalized 4 times during 3 yr. Lesions of the lymph nodes were seen at first, mucocutaneous lesions became evident later. The use of sulphamides and aromatic diamidines produced transient improvement or failed. Amphotericin B (30 intravenous injections, administered every other day) produced dramatic clinical remission [**3**, No. 755].

1842. Costa (N.) & Cunha (W. C.). **Blastomicose sul-americana. Micose de Lutz. A propósito de um caso de localização óssea.** [South American blastomycosis or Lutz's disease. A case with localizations in the bones.]—*Hospital* (*Rio de J.*), **56**, 5, pp. 833–852, 1959.

A case of *Paracoccidioides brasiliensis* infection is reported with visceral and lymphatic lesions and with involvement of several bones of the cranium, ribs, scapula, femur, and jaw.

1843. De Campos (E. C.). **A propósito de um caso de micose de Lutz de localização genital e de seu tratamento pela sulfametoxipiridazina.** [Regarding a case of Lutz's mycosis with genital localization and its treatment with sulphamethoxypiridazine.]—*An. bras. Derm. Sif.*, **34**, 4, pp. 65–70, 2 fig., 1959.

A case of *Paracoccidioides brasiliensis* infection reported from Faculdade de Medicina de Pôrto Alegre, Brazil.

1844. Furtado (T. A.), De Almeida (N.), & Aleixo (J.). **Blastomicose sul-americana com localização ganglionere isolada.** [South American blastomycosis with isolated ganglionar localization.]—*An. bras. Derm. Sif.*, **34**, 3, pp. 39–47, 3 fig., 1959. [Engl. summ. 24 ref.]

Two cases of *Paracoccidioides brasiliensis* infection reported from the Faculdade de Medicina, Univ. Minas Gerais, Brazil.

1845. Furtado (T. A.), Lopes (C. F.), Almeida (N.), Moreira (J. A.), & Pimenta (L. G.). **Tratamento da blastomicose sul-americana pela anfotericina B.** [The treatment of South American blastomycosis with amphotericin B.]—*Hospital* (*Rio de J.*), **56**, 6, pp. 1001–1016, 1959. [Engl. summ.]

At Belo-Horizonte, Brazil, the drug was administered intravenously to 6 patients

in doses up to 75 mg. but usually not more than 50 mg. The total dose varied between 0·955 and 1·600 g. Good results were obtained in 3 cases. 2 patients improved and no effect was observed in 1 case which later improved with sulphamides [cf. **3**, Nos. 755, 1077].

1846. Veronesi (R.), Albuquerque (F. J. M. e.), Del Negro (G.), Sampaio (S. A. P.), Ferreira (J. M.), & Meira (D. A.). **Resultados terapéuticos obtidos com o emprêgo da anfotericina B em formas superficiais e profondas da blastomicose sul-americana.** [Results of the administration of amphotericin B in superficial and deep forms of South American blastomycosis.] *Rev. Hosp. Clín. Fac. Med. S. Paulo*, **14**, 4, pp. 231–248, 17 fig., 1959. [Engl. summ. 11 ref. *T.D.B.*, **57**, p. 180.]

Preliminary results on 11 cases are reported. Amphotericin B has been effective in some mucocutaneous cases of *Paracoccidioides brasiliensis* infection in which sulphamides had been used without success. Patients with pulmonary and lymphatic abdominal lesions lasting for several years showed at least a partial resistance to the treatment with amphotericin B [**3**, No. 755]. The place of sulphamides in the treatment of South American blastomycosis is stressed.

1847. MacClure (E.), Leme (M. A. P.), & Lemos (C.). **Alterações pulmonares na micose de Lut apos tratamento pela sulfa.** [Pulmonary lesions in South American blastomycosis after treatment with sulpha drugs.]—*Hospital (Rio de J.)*, **56**, 5, pp. 741–746, 1959.

A patient was successfully treated with sulphadiazine but died 6 months later due to cardiac failure. Regressive fibrous lesions were seen as well as arteritis [**3**, 588]. The periodic acid-Schiff stain failed to show the membranes of dead fungal cells which became evident after the use of silver methods.

1848. Goncalves (A. P.). **Tratamento da blastomicose sul-americana pela sulfametoxipiridazina.** [The treatment of South American blastomycosis with sulphamethoxypiridazine.]—*Hospital (Rio de J.)*, **56**, 5, pp. 747–750, 1959.

A case with oral and pulmonary lesions was treated with a daily dose of 0·5 g. Healing of the oral lesions was evident after 28 days. The treatment was continued for periods of 1 or 2 months interrupted by similar intervals. The pulmonary lesions also healed [cf. **3**, No. 911].

1849. Mackinnon (J. E.). **Blastomicosis sudamericana experimental evolutiva por via pulmonar.** [Experimental evolutive South American blastomycosis obtained by the pulmonary route.]—*An. Fac. Med. Montevideo*, **44**, 3–4, pp. 355–358, 4 fig., 1959. [Engl. summ.]

Atthe Institu to de Higiene, Univ. Montevideo, pulmonary lesions in mice were constantly obtained by nasal instillation with cultures of *Paracoccidioides brasiliensis*. Haematogenous metastases were seen in several viscera, in the heart and in the tongue. (A more detailed description of this and other experiments have been published in *Trans. R. Soc. trop. Med. Hyg.*, **53**, 6, pp. 487–494, 1959.)

1850. Conti-Díaz (I. A.), Yarzabal (L. A.), & Mackinnon (J. E.). **Lesiones cutaneas, orofaríngeas, rectales y musculares por inoculación intracardíaca de Paracoccidioides brasiliensis al cobayo y al conejo.** [Cutaneous, oropharyngeal, rectal, and muscular lesions after intracardiac inoculation of *P. brasiliensis* of the Guinea-pig and the Rabbit.] *An. Fac. Med. Montevideo*, **44**, 5–6, pp. 601–607, 15 fig., 1959. [Engl. summ.]

At the Instituto de Higiene, Univ. Montevideo, after experimental inoculations with yeast-phase cultures abundant nodular lesions were seen in the eyelids, muzzle, and around the anus and genital orifices. Histological studies showed the develop-

ment of some nodules among the fibres of striated cutaneous muscles. Cutaneous lesions were observed in other areas of the skin. Besides conspicuous lesions of the testicles and minor lesions of other viscera and lymph nodes, an intense attack of the skeletal muscles was observed. The lumbar and gluteal muscles and those of the distal segments of the limbs showed most lesions. The tongue was also involved. Some lesions of the skin could be related to those of the underlying muscles. The rectum was involved in all the inoculated animals. It is presumed that the oro-pharyngeal, rectal, and perianal lesions in South American blastomycosis are not primary.

1851. Lacaz (C. da S.), Passos (M. C. R.), Netto (Celeste F.), & Macarron (B.). **Contribuïção para o estudo da 'blastomicose-infecção'. Inquérito com a paracoccidioidina. Estudo serológico e clínico-radiológico dos paracoccidioidina-positivos.** [Contribution to the study of 'blastomycosis-infection'. Survey with paracoccidioidin. Serologic and clinico-radiologic study of the paracoccidioidin-positive subjects.]—*Rev. Inst. Med. trop. São Paulo*, **1**, 4, pp. 245–259, 6 fig., 1959. [Engl. summ.]

Using paracoccidioidin the authors skin-tested 606 persons attending the Clemente Ferreira Inst. for pulmonary X-ray examination. Positive results were obtained in 25 (mostly 30–50 yr. old, none under 19) and in 9 cases the findings were abnormal, with nodules or with an exaggerated broncho-vascular picture. Treatment for South American blastomycosis (*Paracoccidioides brasiliensis*) of cases with positive skin tests and positive serological reactions associated with pulmonary initial process shown by X-rays must be begun before mycological diagnosis in order to avoid the ill consequences of delay.

The literature is reviewed. Up to 1959 there were 1,726 cases of S. American blastomycosis in the State of São Paulo. There is reason to believe that sub-clinical forms of the disease exist, but this needs confirmation.

1852. Monteiro (E. L.) & De Brito (T.). **Infection of the chorio-allantoic membrane of the chick with the agent of keloid blastomycosis (Paracoccidioides loboi).**—*J. Path. Bact.*, **78**, 2, pp. 567–569, 4 fig., 1959.

At the Dept Microbiol. and Immunol., Univ. São Paulo, Brazil, *P. loboi*, whether directly isolated from skin lesions or from cultures on Sabouraud medium, grew well on the chorio-allantoic membrane of embryonated hen's eggs. The resulting lesions were markedly different from those of *P. brasiliensis*.

1853. Henry (D. E.). **Rhinosporidiosis in Dhamtari.**—*J. Christian med. Ass. India*, **33**, 5, pp. 266–268, 1958.

1854. González-Ochoa (A.). **Dos casos de esporotricosis curados con griseofulvin.** [Two cases of sporotrichosis cured with griseofulvin.]—*Rev. Inst. Salubr. Enferm. trop. (Méx.)*, **19**, 2, pp. 245–249, 1959. [Engl. summ.]

A report from the Inst. de Salubridad y Enfermedades Tropicales, Mexico City, of sporotrichosis (*Sporotrichum schenckii*) in 3 members of a family: the parents showed the classic lymphangitic type of infection of the upper limbs and their 8-yr.-old son showed a verrucous lesion of the temporal area. The father was treated with potassium iodide (4 g. daily), while griseofulvin was administered orally to the mother (1 g. daily) and son (0·250 g. daily). All treatments were continued for 3 months. The 3 patients were cured in the same time and 4 months later no relapses had been observed [cf. **3**, No. 1746.]

1855. Lowenthal (L. J. A.). **Sporotrichosis treated with griseofulvin.**—*Med. Proc. Johannesburg*, **5**, 26, pp. 263–264, 1959.

The 2 cases of successful oral treatment herein reported from the S. Afr. Inst. med.

Res. were in a 48-yr.-old bricklayer and a 44-yr.-old miner, both white [**3**, No. 1746]. *Sporotrichum schenckii* was isolated from a hand of the former and a wrist of the latter (following injury by a pit-prop splinter).

1856. Mariat (F.). **Sur la composition en acides nucléiques de la phase mycélienne de Sporotrichum schenckii. Action de l'anhydride carbonique sur la croissance de Sporotrichum schenckii.** [On the nucleic acid composition of the mycelial phase of *S. schenckii*. Action of carbon dioxide on the growth of *S. schenckii*.] —*C. R. Acad. Sci., Paris*, **250**, 20, pp. 3368–3370; 21, pp. 3503–3505, 1960.

The mycelial phase of *S. schenckii* [**3**, No. 1223] has a high ribonucleic acid content, notably during the early days of growth, RNA: DNA ranging from 17·3 to 6·01, in contrast to the yeast phase for which the corresponding ratios are 1·4–0·71.

CO_2 is normally essential for the growth of the fungus, but it was shown to be replaceable in the presence of KOH by a massive inoculum ($5{\cdot}10^4$ spores/ml.). Oxalo-acetic and α-tetoglutonic acids were also successfully substituted for CO_2.

1857. Campos (E. C.). **Sôbre as lesões iniciais da esporotricose.** [Primary lesions in sporotrichosis.]—*Rev. Méd. Rio Grande do Sul*, **15**, 85, pp. 29–36, 1959.

Nineteen cases of sporotrichosis (*Sporotrichum schenckii*) without the typical chain of nodules are listed. Emphasis is put on some signs useful for the differential diagnosis: cutaneous, non-acute, pustular lesions, deep lesions in the dermis with sparse suppuration, and localization of the lesions in the exposed areas of the skin. Infection was localized in the face (10 cases), the neck (1), the upper extremities (6), or the legs (2).

1858. Bell (D. B. II.). **Sporotrichosis.**—*Hawaii med. J.*, **18**, 1, pp. 39–40, 1958. Report of a *Sporotrichum schenckii* infection of the left leg of a 15-yr.-old schoolboy in Honolulu [cf. **2**, No. 762].

1859. Duperrat, De Sablet, & Badillet. **Sporotrichose cutanée.** [Cutaneous sporotrichosis.]—*Bull. Soc. franç. Derm. Syph.*, **65**, 1, pp. 54–55, 1958.

1860. Batista (A. C.), Guedes (M. Dulcinea C.), & Silveira (J. S.). **Vaginite humana produzida por Hyalodendron lignicola Diddens.** [Human vaginitis caused by *H. lignicola* Diddens.]—*Publ. Inst. Micologia, Univ. Recife, Pernambuco*, **205**, 18 pp., 3 fig., 1959. [Engl. summ.]

Vaginitis caused by *H. lignicola* in a 24-yr.-old white woman was cured in 10 days by combined treatment with cabimex (1 tablet 3 times daily, by mouth) and vegex (1 vaginal tablet daily).

1861. Vardhanabhuti (S.). **Cultural characteristics and life history of a new human pathogen, Thailandia candida, nov. gen. et nov. spec.**—*Sydowia*, **13**, 1–6, pp. 98–104, 2 pl. (29 fig.), 1959. [Germ. summ.]

The fungus here described in detail from Univ. med. Sciences, Bangkok, was isolated from a case of maduromycosis of the finger in Thailand in 1956. The cultural characters resemble those of *Candida* except that after a month on common laboratory media cleistothecia develop. These are globoid or shield-shaped, 110–140 μ diam., and contain few to many globose, 8-spored asci, 22–28 μ diam.; ascospores being 3–4 μ diam. inside the ascus and $< 16\,\mu$ after discharge. The fungus is pathogenic for the guinea-pig in which spore-containing spherules (17–43 × 26–64 μ) develop. It is classified as a new member of the Gymnoascaceae.

1862. Batista (A. C.), Vieira (José R.), & Coêlho (R. P.). **Schwanniomyces hominis n. sp. como causa de lesión epidérmica en recien nacido.** [*S. hominis*

causing an epidermal lesion in a new-born child.]—*Rev. ecuat. hig. Med. trop.*, **16,** 2, pp. 136–141, 3 fig., 1959.

A white child exhibited at birth a small reddish pruriginous lesion of the forehead. On examination at 3 months there was a smooth, whitish, erythematous-squamous lesion. 2–4 cm. diam., with a highly coloured margin, highly pruriginous and exuding a clear fluid. There was discrete alopecia where this lesion invaded the hairy scalp. Similar lesions were present on the elbows, knees, and chest.

The yeast, which is described, was isolated at Univ. Recife, Brazil, from squamae on Sabouraud-acromycin medium.

1863. Batista (A. C.), Silveira (G. L.), De Lima (J. A.), & De Oliveira (S. D.). **Fungos filamentosos assinalados na bile humana.** [Mycelial fungi in human bile.]—*Revista Roche*, **19**, 10, pp. 290–294, 6 fig., 1959.

At the Instituto de Micologia, Univ. Recife, Brazil, bile samples obtained by catheterization were plated on Sabouraud acromycin medium. The isolates included *Hyalopus* [*Cephalosporium*] *serrae*, *H.* [*C.*] *acremonium*, *H.* [*C.*] *keratoplasticum*, *H. onychophilus* [*C. onychophilum*], *H. niveolanosus*, and *Aureobasidium* [*Pullularia*] *pullulans*. The cultural features of *H. niveolanosus* are described.

1864. Batista (A. C.), Coêlho (R. P.), & Vieira (J. R.). **Da ocorrência de Hanseniaspora valbyensis Kloecker em apêndice cecal humano e lesões epidérmicas.** [On the occurrence of *H. valbyensis* in the human caecal appendix and epidermal lesions.]—*Mycopathologia*, **12**, 3, pp. 185–188, 2 fig., 1960. [Engl. summ.]

A description, from the Instituto de Micologia, Univ. Recife, of 2 strs. of the fungus, 1 from the contents of the appendix in a case of chronic appendicitis, and 1 from a spreading interdigital lesion of the left hand of a 30-yr.-old white woman. The fungus is considered to be probably a pathogen.

1865. Caretta (G.). **Coremiella cuboidea (Sacc. et Ell.) Cif. et Car. n. comb. isolata da feci umane.** [*C. cuboidea* isolated from human faeces.] -*Mycopathologia*, **12**, 3, pp. 233–250, 21 fig., 1960. [Engl. summ.]

Studies at the Istituto Botanico, Univ. Pavia, Italy, of 4 isolates of *Coremiella* from human faeces, indicated that the genus resembles *Geotrichum* but that, in addition to some mycelial, chlamydospore-like cells, coremioid mycelial strands are formed. Arthrospore formation is endogenous, and, as in *Geotrichum*, there are hyaline and duller, chlamydospore-like, fertile arthrospores, though they are less differentiated. The strs. were referred to *C. ulmariae*, which is considered conspecific with *C. cuboidea*.

1866. Caretta (G.). **Revisione del ceppo autentico attuale di Geotrichum rugosum (Cast.) Dodge.** [Revision of the authentic, actual strain of *G. rugosum*.]—*Atti Ist. bot. Univ. Pavia*, Ser. 5, **17**, pp. 257–262, 1 pl., 1960. [Engl. summ. 19 ref.]

A morphological study at Univ. Pavia, Italy, of a sub-culture from the Istituto di Medicina Tropicale, Lisbon, of a fungus isolated by A. Castellani from sputum as *Endomyces rugosus* but labelled '*G. rugosum* (*Hemispora rugosa*) Cast. 1910' showed that the arthrospores, though similar to, were not identical with those of *Geotrichum*. Intercalary and apical chlamydospores were present. The isolate may be a *Trichosporon* sp. which in 50 yr. of laboratory culture has lost the capacity to multiply by blastospores.

1867. Heim (R.) & Cailleux (R.). **Nouvelle contribution à la connaissance des Psilocybes hallucinogènes du Mexique.** [A new contribution to the knowledge of the hallucinogenic spp. of *Psilocybe* from Mexico.]—*Rev. Mycol., Paris*, **24**, 5, pp. 437–441, 1960.

1868. Eugster (C. H.). **Brève revue d'ensemble sur la chimie de la muscarine.** [A brief, general review of the chemistry of muscarine.]—*Rev. Mycol., Paris*, **24**, 5, pp. 369–385, 1960. [22 ref.]

A French version of work already noticed [**3**, No. 1542].

1869. Moreau (C.) & Moreau (Mireille). **Un danger pour le bétail nourri de plantules fourragères cultivées en germoirs : la pullulation d'une moisissure toxique, l'Aspergillus clavatus, cause des accidents mortels.** [A danger for Cattle fed on forage seedlings grown in germinators: the rapid development of a toxic mould, *A. clavatus*, the cause of fatal accidents.] —*C. R. Acad. Agric. Fr.*, **46**, 7, pp. 441–445, 1960.

Drawing attention to the danger of poisoning cattle by feeding the animals with cereal seedlings grown without soil, the authors report that in 1959, because of severe drought, some farmers in France fed their cows with forage seedlings from a continuously moving series of germinators. On a farm in the Île-de-France, where the cows were taken ill and 1 died, the seedlings were found to be heavily infected by *A. clavatus* [cf. **2**, Nos. 1192, 1194]. Intravenous and intraperitoneal inoculation of mice with the filtrate from a 12-days-old culture caused death in all cases. The supply of infected plants was stopped, but nearly all the cows continued to show symptoms of poisoning, and several died. Only after prolonged convalescence did the health of the animals become satisfactory. The germinators were then brought into use again, and again the seedlings were found to be infected by *A. clavatus*, the cows again developing early symptoms of poisoning.

1870. Pidoplichko (M. M.). Про деякі актуальні питання мікотоксикології. [On some vital questions of mycotoxicology.] —*J. Microbiol., Kiev*, **22**, 2, pp. 8–12, 1960.

A review with special reference to studies made in the U.S.S.R.

1871. Joffe (A. Z.). **Toxicity and antibiotic properties of some Fusaria.**—*Bull. Res. Coun. Israel*, Sect. D, **8**, 2, pp. 81–95, 1 fig., 1960. [18 ref.]

Of 501 *Fusarium* cultures (mostly *F. poae* and *F. sporotrichioides*) isolated from cereals, soils, and other substrates in the Orenburg district, U.S.S.R., during 1943–49, 112 were highly and 67 slightly toxic and produced local inflammation on rabbits' skin followed by a necrosis, together with acute degenerative processes in the kidneys and adrenals, and hyperaemia of internal organs, especially of the digestive tract. The more toxic produced leucocytorrhoea and haemorrhagic oedema. Rabbits, cats, white mice, horses, and other animals fed on toxic cultures died. [Much of this work has been published in Russian in papers which are cited.]

1872. Zontine (W. J.). **Mycotic diseases of animals.**—*Vet. Med.*, **55**, 1, pp. 49–54, 3 fig., 1960.

Brief popular descriptions, for the general practitioner, of the principal systemic and subcutaneous mycoses of animals.

1873. **Report on the animal health services in Great Britain, 1958.**—pp. iv+119, H.M. Stationery Office, 1960. 6*s*.

In routine diagnoses at the Central Vet. Lab., Weybridge, during 1958 [cf. **3**, No. 930] mycotic infection was found in 7·9% of all aborted bovine foetuses examined. *Aspergillus fumigatus* was isolated from nodular lesions in the lungs of a calf which had been treated with antibiotics (p. 51) and there were outbreaks of pulmonary aspergillosis in piglets and lambs. Concurrent infection by *Candida albicans* and *Rhizopus microsporus* was confirmed in piglets from several sources and moniliasis

was encountered in young partridges (pp. 62–63). Yeasts were found in 0·3% of mastitis samples (p. 43).

A clinical survey showed the infection rate of mycotic dermatitis [*Dermatophilus dermatonomus*] in sheep to be 80% in the West Country and 56% in the South-East. Treatment trials using a copper sulphate dip gave unsatisfactory results. This disease is being diagnosed with increasing frequency in cattle and horses (p. 58).

In experimental studies, mycotic abortion in cattle was induced by intravenous injection of *A. fumigatus* (p. 80). Topical application of formaldehyde, nystatin, captan, and hexadecamethylene-1:16-bis (isoquinolinium chloride) or tinevet was found to be ineffective for the treatment of experimental *Trichophyton verrucosum* infection in calves (p. 51).

1874. Funke (H.). **Bovin mastit med fynd av jästsvampar i juversekretet.** [Bovine mastitis with the presence of yeasts in the udder secretion.]—*Nord. Vet.-Med.*, **12**, 1, pp. 54–62, 1960. [Engl., Germ. summ.]

Following a brief review of the literature on yeasts associated with bovine mastitis, the author reports the isolation, at the Statens Veterinärmedicinska Anstalt, Stockholm, from 21 infected quarters in 16 herds of *Candida parapsilosis*, *C. krusei*, *C. zeylanoides*, *C. pulcherrima*, *Torulopsis famata*, *T. sake*, and *Rhodotorula mucilaginosa*. The course of the disease in 4 herds is described in detail. Udder symptoms were usually soreness and distinct subcutaneous oedema, and the secretions greyish-yellow, thin, and flocculent. The changes lasted for 1–4 weeks. Agglutinating antibodies could not be demonstrated. Intramammary antibiotic treatment, combined with delayed milking, is considered to be contra-indicated.

1875. Krejaković-Miljković (V.) & Stojanović (N.). **Kvasci kao uzročnici mastita posle terapije zaraznog presušenja vimena penicilinom.** [Yeasts as a cause of mastitis in Cows after penicillin therapy.]—*Vet. Glas.*, **14**, 1, pp. 25–28, 1960. [In Croat. Germ. summ.]

Saccharomyces fragilis was isolated from the milk in 12 cases of mastitis which had been treated with penicillin. The fungus produced mastitis when introduced, in suspension in physiological saline, into the udders of healthy cows, and produced a more severe infection when introduced together with penicillin.

1876. Pezenberg (Erika). **Haplomykose beim Hasen.** [Haplomycosis in the Hare.] —*Zbl. Bakt.*, Abt. 1 (*Orig.*), **178**, 1, p. 140, 1960.

At the Institut für Parasitologie der Veterinärmedizinischen Fakultät, Freien Univ., Berlin, *Emmonsia parva* [**3**, No. 1058] (*Haplosporangium parvum*) was isolated from the lung tissue of a hare, apparently the 1st record for Germany. The spherules were approx. 444 μ diam.

1877. Saëz (H.). **Flore fongique intestinale du Manchot royal (Aptenodytes patagonica Miller).** [The intestinal fungal flora of the King Penguin (*A. patagonica*).] —*Rec. Méd. vét.*, **86**, pp. 567–573, 2 fig., 1960. [Engl., Span. summ. 13 ref.]

Studies at the Muséum National d'Histoire Naturelle, Paris [cf. **3**, Nos. 1636, 1643], showed that the intestinal fungal flora of *A. patagonica* brought from the Kerguelen Islands and kept in the Parc Zoologique, Paris, since 1955, 1957, or 1959, mainly consists of yeasts (*Debaryomyces*, *Torulopsis*, *Candida*, and *Rhodotorula*), some of which appear to be well adapted, *Geotrichum candidum*, and *Streptomyces*. Other fungi present appeared to be simply carried along in the digestive tract.

1878. Saëz (H.). **Contribution à l'étude de la mycoflore intestinale des animaux sauvages en captivité. 1. Fréquence du Candida albicans (Robin) Berkhout chez**

le Fourmilier, la Loutre de France, la Loutre d'Indochine, l'Okapi, le Manchot Royal et le Manchot de Humboldt. [A contribution to the intestinal mycoflora of wild Animals in captivity. 1. The frequency of *C. albicans* in the Ant-Eater, French Otter, Indochinese Otter, Okapi, Royal Penguin, and Humboldt's Penguin.]—*Rev. Mycol., Paris*, **24**, 5, pp. 426–433, 1960. [25 ref.]

Already noticed [**3**, No. 1643].

1879. Benedek (T.). **IV. Venezuelan Congress of phthisiology and pneumology. Deep mycoses in Venezuela with special reference to pulmonary mycoses.**—*Mycopathologia*, **12**, 3, pp. 177–184, 5 fig., 1960.

A general account of the Congress, at Valencia, Venezuela, 8–12 Dec., 1959, which included a symposium on deep mycoses in Venezuela, with special reference to pulmonary mycoses. Reference is made to the achievements of the recently established 'Comisión Coordinadora del Estudio Nacional de las Micoses' [cf. **3**, 185]. A Central Registry has already been established at Caracas to collect and collate information on mycoses. Standards have been laid down for the procedures to be followed in skin tests and their interpretation. An epidemiological map of mycoses in Venezuela is being prepared, following a skin-testing survey of nearly 10,000 persons. A serological laboratory preparing antigens of *Paracoccidioides brasiliensis*, *Blastomyces dermatitidis*, and *Histoplasma capsulatum*, and carrying out complement-fixation tests, has been established at the Inst. trop. Med., Central Univ., Caracas.

1880. Campins (H.). **Epidemiological aspects of deep mycoses in Venezuela.**—*Mycopathologia*, **13**, 1, pp. 25–32, 1 map, 1960. [Germ. summ.]

In this brief review it is stated that all the known deep mycoses have been found in Venezuela [cf. **3**, No. 465]. The author, of the Hosp. Central, Barquisimeto, briefly covers work done on coccidioidomycosis, histoplasmosis [cf. **3**, No. 424], paracoccidioidomycosis, chromoblastomycosis, actinomycosis and nocardiosis, maduromycosis, and other deep mycoses. The agent of chromoblastomycosis is frequently *Cladosporium carrionii* (cf. Campins & Scharyj, *Gac. méd. Caracas*, **61**, p. 127, 1935).

1881. González-Ochoa (A.) & González-Mendoza (A.). **La micología médica en México. Revisión de la bibliografía aparecida durante el período de 1946 a 1958.** [Medical mycology in Mexico. Review of the literature for 1946–58.]—*Mycopathologia*, **13**, 1, pp. 48–71, 1 map, 1960. [Engl. summ. Numerous ref.]

A comprehensive review. The author states that in addition to the dermatomycoses the most frequent mycoses in Mexico are actinomycotic mycetoma (*Nocardia brasiliensis*), sporotrichosis (*Sporotrichum schenckii*), coccidioidomycosis (*Coccidioides immitis*), actinomycosis (*Actinomyces israelii*), chromoblastomycosis (*Phialophora* spp.), and acute pulmonary primary histoplasmosis (*Histoplasma capsulatum.*)

1882. Jung (H. D.). **Mathematisch-statistische Analysen über die Mykosen-Frequenz in einer diabetischen Population.** [Statistical analyses of the frequency of mycoses in a diabetic population.]—*Arch. klin. exp. Derm.*, **206**, pp. 526–529, 3 fig., 1958.

In this study the mycological findings in 1017 in-patients of 2 diabetic hospitals were compared with those in an equal number of in-patients at the Universitäts-Hautklinik, Greifswald.

In the case of erythrasma [*Nocardia minutissima*] 53 diabetics (including 47 men) were affected, compared with 11 patients at the skin clinic. For trichomycosis

palmellina (caused by cocci and *Nocardia* and *Actinomyces* spp.) the figures were 207:190.

For thrush [*Candida*] no figures are given: the expected preponderance among diabetics was observed, but was not as marked as expected. One possible reason is that the severity of symptoms in intertriginous thrush leads to a concentration of such patients in the skin clinic, and another is that numerous cases of thrush were provisionally classed as epidermophytia dyshidrotica pedis pending mycological diagnosis.

For epidermophytia (including cases of eczema marginatum and axillare caused by fungi) the figures were 159:71, which included some double infections (55:10).

A comparison of the incidence of mycoses among various types of diabetes (Mohnike's classification) showed that, when the sexes were lumped together, and when thrush infections were disregarded, the incidence among the various groups was regular. Patients of Type 6 were rarely affected by thrush.

1883. Lang (K.), Oberhoffer (G.), & Seeliger (H. P. R.). **Über Pilzbefunde im Stuhl und Urin unter antibiotischer Therapie.** [Mycological findings in the faeces and urine during antibiotic therapy.]—*Z. Kinderheilk.*, **84**, pp. 69–76, 2 graphs, 1960. [25 ref.]

At the Universitäts-Kinderklinik, Univ. Bonn, Germany, 85% of mycological cultures from the faeces, anal swabs, and urine (47 child patients; 1,000 samples) were negative, while during antibiotic therapy over 75% were positive. This applied not only to oral therapy with broad spectrum antibiotics, but also to narrow-spectrum antibiotics and to penicillin when administered orally over a long period. In 2 patients receiving intravenous tetracycline therapy fungi were numerous in the faeces. Supplementary treatment with nystatin led to negative mycological findings in most cases. In risky patients, *viz.* diabetics, pregnant women, prematurely born infants, and patients with malignant tumours, this supplementary treatment is a particularly useful precaution.

1884. Grimmer (H.). **Die Epidemiologie der Berliner Mykosen von 1952–1956.** [Epidemiology of mycoses in Berlin, 1952–56.]—*Arch. klin. exp. Derm.*, **206**, pp. 660–664, 1958.

The author has tabulated data on cases of dermatomycosis seen by him in W. Berlin in 1952–54 (135 patients) and 1954–56 (166 patients).

For the 1st period the findings were, approximately, *Trichophyton mentagrophytes* 70%, *T. rubrum* 29%, and *Epidermophyton floccosum* 1%, and for the 2nd period *T. rubrum* 70%, and *T. mentagrophytes* 30%. The number of nail infections by *T. rubrum* doubled from 40% of 60 positive cultures in '52–'54, to 80% of 70 cases in '54–'56, compared with a trebling of the comparable cases in which there was no nail involvement.

1885. Martin (W. J.) & Nichols (D. R.). **The mycoses.**—*Proc. Mayo Clin.*, **35**, 7, pp. 149–161, 1960. [23 ref.]

A summary of the clinical aspects of current advances in knowledge of the pathogenesis and treatment of infections caused by *Actinomyces israelii*, *Nocardia asteroides*, *Cryptococcus neoformans*, *Blastomyces dermatitidis*, *B.* [*Paracoccidioides*] *brasiliensis*, *Histoplasma capsulatum*, *Coccidioides immitis*, *Sporotrichum schenckii*, *Candida albicans*, *Monosporium apiospermum* [*Allescheria boydii*] and other spp. involved in the maduromycosis syndrome, *Hormodendrum* [*Phialophora*] *pedrosoi* and other spp. responsible for chromoblastomycosis, *Aspergillus* spp., especially *A. fumigatus*, *Geotrichum candidum* and other *G.* spp., *Mucor*, *Rhizopus*, and *Absidia* spp. (agents of mucormycosis), and *Penicillium* spp., followed by a note on the treatment of systemic mycoses with amphotericin B.

1886. Mitchell (J. H.). **Some French dermatologists I have known.** –*Arch. Derm. Chicago*, **81**, 6, pp. 962–968, 8 fig., 1960.

In 1920 the author visited France with letters of introduction to the celebrated French dermatologists of that period. He records his impressions (illustrated by pencil sketches) of Sabouraud, Gougerot, Jeanselme, and others.

1887. Castellani (A.). **A brief note on the viability of some pathogenic fungi in sterile distilled water.**—Reprinted from *Imprensa médica*, **24**, June no., 3 pp., 1960.

At the Instituto de Medicina Tropical, Lisbon, the author has conserved inocula of diverse pathogenic fungi for 1 yr. or longer without morphological or biological change in cotton wool-plugged tubes containing 6–8 ml. of sterile, boiled, distilled water at room temp.

1888. Ferguson (J. S.) & Prazac (G.). **The slide culture.**—*Arch. Derm., Chicago*, **81**, 6, pp. 974–977, 7 fig., 1960.

Details of this well-known method [cf. R. W. Riddell, *Mycologia*, **42**, pp. 265–270, 17 fig., 1950].

1889. Balabanoff (V. A.). **Über die Anwendimysmöglichkeiten der Vegetablienfarbverfahren nach Wesselinoff in der Mykologie und in der Histopathologie.** [On the possibilities of adapting Wesselinoff's method of plant-staining to mycology and histopathology.]—*Zbl. Bakt.*, Abt. 1 (*Orig.*), **178**, 1, pp. 135–139, 1 col. pl., 1960. [Engl., Fr., Span., Russ. summ.]

The chrome-acid-Schiff reagent (*Dtsch. tierärztl. Wschr.*, **1943**, 29–30, pp. 1–7, 1943) is reported to have been successfully applied at the Medical Faculty, Sofia, Bulgaria, in diagnostic studies on [unspecified] deep and systemic mycoses, generalized and septic infections by *Candida albicans*, the arthrospores and mycelium of dermatophytes in permanent preparations of skin and nail squamae previously treated with KOH, and hyphae of actinomycetes in glands.

1890. Knoth-Born (R. C.), Knoth (W.), & Farrochzad (S.). **Vergleichende mykologische Untersuchungen mit verschiedenen Nährböden.** [Comparative mycological studies with different media.] –*Z. Haut- u. Geschlechtskrankh.*, **29**, 3, pp. 85–90, 6 fig., 1960.

Of the 9 media tested at the Univ.-Hautklinik, Giessen, W. Germany, for the routine culture of various dermatophytes, *Candida albicans*, *Sporotrichum* [*Cladosporium*] *gougerotii*, and *Nocardia asteroides*, the most generally suitable were Kimmig-test. cycloheximide [actidione]—antibiotica, and Grütz III agars.

1891. Granits-Thurner (J.) & Schirmer (H.). **Die kulturelle Erfassung von Hefen bei geringster Einsaat.** [Culture of yeasts from minimum inocula.]—*Mykosen*, **3**, 1, pp. 8–12, 1960.

At the Universitätsklinik für Geschlechts-und Hautkrankheiten, Vienna, Austria, the authors found conventional media adequate for the isolation of fungal pathogens from urine, and bronchial and pleural fluid, but unsatisfactory for blood, eye swabs, etc., because of the small amount of inoculum present. By attempting single cell cultures of sporogenous and asporogenous yeasts previously isolated from these last materials a number of media were tested for suitability.

Suitable media were cornsteep liquor (*i.e.* maize water+1·33% $(NH_4)_2SO_4$, 1·33% $MgSO_4$, and 0·83% peptone) enriched with 3% dextrose; maltose dextrose bouillon [no details]; and bean broth (*i.e.* bean water+1% dextrose, 0·5% peptone.

and 0·2% NaCl) enriched with 3% dextrose. Work is needed to detect possible inhibitory factors in blood.

1892. Piggott (W. R.) & Emmons (C. W.). **Device for inhalation exposure of Animals to spores.**—*Proc. Soc. exp. Biol.* (*N.Y.*), **103**, pp. 805–806, 2 fig., 1960.

A description from the Nat. Inst. of Allergy and infect. Dis., Bethesda, Md, of a simple instrument devised for the simultaneous exposure of 10 mice or other animals to an atmosphere of dry spores, with minimal contamination of fur. The device consists of a culture flask with 10 side arms in which the animals are placed with their noses extending into the flask. Air is pumped into the flask to disperse the spores. The number of viable spores inhaled are estimated by culturing the lungs of 5 animals immediately after exposure.

1893. Rippon (J. W.). **Dimorphism in pathogenic fungi.**—*Diss. Abstr.*, **20**, 7, pp. 2501–2502, 1960.

In studies at Univ. Ill. on conditions which determine mycelium/yeast transformations *Trichophyton rubrum*, *Microsporum audouinii*, and *Cladosporium mansonii* were induced to become yeast-like by growth on gradient tilt plates against increasing concentrations of cysteine at 37° C. *In vivo* transformation was accomplished when normal mycelium contained in a dialysis bag was implanted in the peritoneal cavity of rabbits. The injection of the *in vitro* or *in vivo* altered organisms into the peritoneum of mice resulted in numerous lesions resembling mycotic granulomas in the liver, kidneys, and the peritoneal cavity.

Frogs (*Rana pipiens*) and lizards (*Sceloporus undulatus*) were injected with yeast (Y) or mycelial (M) phase of *Histoplasma capsulatum* and incubated at different temperatures. Frogs injected with M or Y phase and incubated at 25° or 30° all showed mycelial infection, similarly for lizards incubated at 25°; at 37° the Y phase occurred in lizards inoculated with the M phase.

1894. Viteź (I.). **Nährböden zur Züchtung und Identifizierung von pathogenen Pilzen.** [Nutrient media for the culture and identification of pathogenic fungi.]—*Zbl. Bakt.*, Abt. 1 (*Orig.*), **178**, 4, pp. 523–530, 1960. [Engl., Fr., Span., Russ. summ.]

Particulars are given of the composition of 5 media used at the State Inst. Hygiene, Budapest, Hungary, of which 2 (1 semi-synthetic, 1 exclusively of natural ingredients) serve for isolation from test material and 3 (malt extract, maize meal agar, potato agar) for identification.

1895. Baum (G. L.) & Schwarz (J.). **Clinical experiences with amphotericin B.**—*Antibiot. Ann. 1959–1960*, pp. 638–643, 1960.

At the Veterans Administration Hosp., Univ. Cincinnati Coll. Med., Ohio, 6 cases of histoplasmosis (*Histoplasma capsulatum*) (1 fatal), 5 of North American blastomycosis (*Blastomyces dermatitidis*) (1 fatal), and 2 of cryptococcosis (*Cryptococcus neoformans*) were treated with amphotericin B at 0·5–1·0 mg./kg., given intravenously in 500–1,000 ml. 5% glucose in water over a 4–6 hr. period. There was definite evidence of clinical effectiveness in the treatment of these 3 diseases, although the drug produced unpleasant side effects.

1896. Campbell (Charlotte C.) & Hill (Grace B.). **Beneficial therapeutic effects of solubilized amphotericin B after oral administration in experimental coccidioidomycosis, histoplasmosis, and cryptococcosis in Mice.**—*Antibiot. Ann. 1959–1960*, pp. 622–630, 6 graphs, 1960.

The survival of mice was prolonged by total dosages of as little as 70 mg./kg.

solubilized amphotericin B even when therapy was delayed until 4–10 days after infection, in experiments at the Walter Reed Army Inst. Res., Washington, D.C. Serum levels of 1·2 μg./ml. were demonstrated after 4 days' oral therapy with 25 mg./kg. It is concluded from these results that clinical trials in systemic mycotic infections in man are warranted.

1897. Gerke (J. R.), Gentile (J.), Stander (H.), & Pagano (J. F.). **Respirometric assay of nystatin in animal tissue.**—*Antibiot. Ann. 1959–1960*, pp. 563–568, 1 fig., 1 graph, 1960.

At the Squibb Inst. for med. Res., New Brunswick, N.J., a suspension of the test organism, *Saccharomyces mellis*, in a glucose broth was placed with a homogenate of the tissue in a 5 ml. hypodermic syringe, which was then sealed. The vol. of CO_2 produced was inversely related to the nystatin conc. of the tissue. In tests with pigs and poultry 3–12 units/g. tissue were detected.

1898. Lechevalier (H.). **Comparison of the in vitro activity of four polyenic antifungal antibiotics.**—*Antibiot. Ann. 1959–1960*, pp. 614–618, 1960.

At the Inst. Microbiol., Rutgers State Univ., New Brunswick, N.J., nystatin was the least active against fungi in general, candicidin the most active against yeasts. While candidin and amphotericin B had almost identical antifungal spectra they could be differentiated by means of 4 test organisms (*Candida albicans*, *Saccharomyces cerevisiae*, *Aspergillus niger*, *Mucor rouxii*). On solid media the 4 polyenes were more active at a neutral pH than at pH 4·5. Candicidin was affected most by pH variations and nystatin the least.

1899. Babad (J.), Turner-Graff (R.), Pinsky (A.), & Sharon (N.). **The biological properties of bacillomycin R.**—*Ktavim Quart. J. agric. Res. Sta. Beit Dagan-Rehovot* [formerly *Rec. agric. Res. Sta. Rehovot*], *Israel*, **10**, 1, pp. 33–38, 1960.

This antibiotic produced by *Bacillus subtilis*, the spectrum of which is given in respect of a number of dermatophytes and yeasts, showed fungistatic rather than fungicidal effects and little, if any, anti-bacterial properties. Its therapeutic value may only be considered in conjunction with other agents.

1900. Hosoya (S.), Soeda (M.), Okada (K.), & Fujita (H.). **Eurotin, an antifungal antibiotic. I.**—*Tôhô Igakkai Zasshi*, **6**, pp. 285–292, 1959. [*Chem. Abstr.*, **54**, 16, col. 16537 d, 1960.]

Details are given of the isolation of eurotin from 2 strs. of *Streptomyces griseus*. It was soluble in water, MeOH, dilute EtOH, and dilute acetone but not in EtOH, BuOH, ETOAc, C_6H_6, Et_2O, or petroleum ether. Among the organisms inhibited *in vitro* were *Candida albicans*, *Aspergillus niger*, *A. fumigatus*, and *Trichophyton interdigitale*, while experimental trichophytosis in guinea-pigs and *C. albicans* infection in mice were also effectively combated.

1901. Soeda (M.) & Fujito (H.). **Akitamycin, an antifungal antibiotic. I.**—*J. Antibiot.* (*Japan*), Ser. B, **12**, 4, pp. 293–294, 1959. [*Chem. Abstr.*, **54**, 14, col. 14359 i, 1960.]

The antibiotic, isolated at the Antibiotics Res. Inst., Tokyo, from the mycelium of *Streptomyces akitaensis* by extraction with Me_2CO, evaporation, and precipitation at pH 3·6, withstood boiling for 1 hr. at pH 7 or 9 but not at 2. Its toxicity to *Candida albicans*, *Aspergillus niger*, and *Trichophyton* spp. was counteracted by exposure to the sun at pH 7 or the addition of horse serum.

1902. McLeary (J. A.), Sypherd (P. S.), & Walkington (D. Z.). **Mosses as possible sources of antibiotics.**—*Science*, **131**, 3393, p. 108, 1960.

At the Dept Bot, Ariz. State Univ., Tempe, extracts obtained from 12 moss spp. by various solvents were screened for antibacterial and antifungal activity. Of 3 spp. which showed antibiotic activity against bacteria, 2 (*Anomodon rostratus* and *Orthotrichum rupestre*) were active against *Candida albicans*.

1903. Zsolt (J.). **Selektive Wirkung von Triphenyltetrazoliumchlorid gegen Hefen.** [Selective action of triphenyltetrazoliumchloride against yeasts.]—*Naturwissenschaften*, **47**, 11, p. 255, 1960.

The yeast spp. tested for sensitivity to TTC at Inst. Plant Physiol., Univ. Szeged, Hungary, on a medium composed of 5 g. $(NH_4)_2SO_4$, 1 g. KH_2PO_4, 0·5 g. $MgSO_4 \cdot 7H_2O$, 10 g. glucose, 20 g. agar, and 10 ml. yeast autolysate/1,000 ml. tap water fell into 5 groups, of which the most resistant, growing at all concs. (M/5,000, 2,500, 1,250, and 625) comprised, *inter alia*, *Candida albicans*, *C. guilliermondii*, *C. parapsilosis*, *C. stellatoidea*, and *Geotrichum candidum*.

1904. Bugyaki (L.). **Dermatose contagieuse des ruminants et du cheval (Streptotrichose, actinomycose cutanée).** [Contagious dermatitis of Ruminants and the Horse (streptothricosis, cutaneous actinomycosis)].—*Bull. Off. int. Épiz.*, **51**, pp. 237–251, 1959. [Engl., Span. summ. *V.B.*, **30**, p. 172.]

The author reviews cutaneous streptothricosis (*Dermatophilus dermatonomus*) of cattle, sheep, and horses in the Belgian Congo. Five daily doses of penicillin, aureomycin, or terramycin gave good results. Recovery from natural infection gave no immunity.

1905. Heinrich (S.). **Zur Aetiologie und Mikrobiologie der Aktinomykose. IV. Über die Empfindlichkeit des Actinobacillus actinomycetem-comitans gegen die gebräuchlichen Antibiotica und Sulfonamide in vitro. (Ein Beitrag zur antibiotischen Therapie der Aktinomykose des Menschen).** [On the aetiology and microbiology of actinomycosis. IV. On the sensitivity of *A. actinomycetem-comitans* to the usual antibiotics and sulphonamides *in vitro*. (A contribution to the antibiotic therapy of human actinomycosis).]—*Zbl. Bakt.*, Abt. 1 (Orig.), **177**, 2, pp. 255–263, 1960. [*B.H.*, **35**, p. 449.]

In further studies at the Hygienisches Inst., Univ. Cologne [**3**, No. 1254], all 10–37 strs. tested were sensitive to tetracycline, aureomycin, and terramycin, while the action of streptomycin, chloramphenicol, and more especially of polymyxin was variable. All the strs. were resistant to penicillin, oleandomycin, and selectomycin, and nearly all to erythromycin.

The diffusion (disk) test proved to be a useful method for obtaining rapid results.

1906. Ospovat (B. L.). Современные методы лечения висцерального актиномикоза. [Present-day methods for treating visceral actinomycosis.]—*Klin. Med., Mosk.*, **38**, 6, pp. 11–18, 2 pl., 2 fig., 1960.

At the S.P. Botkin Hosp., Moscow, 171 cases of actinomycosis [*Actinomyces israelii*] have been under observation. Penicillin was the most frequently used antibiotic. Streptomycin is also effective. Dihydro-streptomycin-paskat, a combination of streptomycin and para-amino-salicylic acid, gave good results in 2 cases.

1907. Wallenburg (C. S.). **Salpingitis actinomycotica.**—*Ned. Tijdschr. Geneesk.*, **104** (i), pp. 16–18, 2 fig., 1960. [Dutch, Engl. summ.]

An oviduct with cystose dilatation due to *Actinomyces* [(?) *israelii*] was successfully removed from a 23-yr.-old woman.

1908. Cotton (R. E.) & Lloyd (H. E. D.). **Lipid pneumonia and infection with Nocardia asteroides complicating achalasia of the cardia.**—*J. Path. Bact.*, **79**, 2, pp. 251–256, 4 fig., 1960. [19 ref.]

In a 49-yr.-old woman examined at the Bland Sutton Inst. Path., Middx Hosp., London, long-standing achalasia of the cardia was complicated by massive excavation of the lung due to paraffin granuloma and *N. asteroides* infection.

1909. Magaña-Lozano (M.). **El empleo de las sulfamidas en el tratamiento de los micetomas.** [The use of sulphamides for the treatment of mycetomas.]—*Rev. méd. Hosp. gen. (Méx.)*, **23**, 3, pp. 223–232, 1960. [Engl., Fr. summ.]

At the Hosp. General, México City, 7 cases of mycetoma of the lower limbs, due to *Nocardia brasiliensis*, were treated for 2–4 months with 0·5 g./day of 3-sulphanilamide-6-methoxypyridaxine. Chloramphenicol, streptomycin and iloticin were also administered. The skin lesions improved in all patients but a definitive cure was not obtained, and in 1 case, with extensive lesions of the bones, amputation was necessary.

1910. Vipulyasekha (Somneuk) & Vathanabhuti (Saman). **Treatment of nocardial mycetoma with sulphamethoxypyridazine.**—*Brit. J. Derm.*, **72**, 5, pp. 188–191, 1960.

After commenting on 1 previous case in Thailand in 1934 in a woman of 37, a 2nd case caused by *Nocardia asteroides* is described from the Royal Thai Army Hosp., Bangkok, in a man of 33, with 10-yr. history of ulcers and sinuses following nodules. After failure of usual remedies, 1·5 g./day sulphamethoxypyridazine was given, with healing in 3 weeks. A relapse was successfully treated in the same way.

1911. Scharyj (M.), Levene (N.), & Gordon (H.). **Primary pulmonary involvement with Monosporium apiospermum. Report of a case with clinical, pathologic and mycologic data.** *J. infect. Dis.*, **106**, 2, pp. 141–148, 6 fig., 1960.

The distinctive histopathology of pulmonary infection by *Allescheria boydii* [**3**, No. 673] in a 26-yr.-old female patient at the SS. Mary and Elizabeth Hosp., Louisville, Ky, is fully described. Of the 2 types of granules observed, large and small, the former is considered to represent an actively growing phase of the fungus in tissue and the latter latent or inhibited stages of development. A right upper lobectomy resulted in complete recovery.

1912. Segretain (G.) & Segretain (Geneviève). **Sur des caractères particuliers de Madurella mycetomi et de Madurella americana : besoins en soufre et en leucine.** [On particular characters of *M. mycetomi* and *M. americana*: sulphur and leucine requirements.]—*C. R. Acad. Sci., Paris*, **250**, 26, pp. 4432–4434, 2 graphs, 1960.

Leucine was shown to be an essential factor in the growth of *M. americana*. The isolation of spontaneous mutants of *M. mycetomi* unable to utilize sulphate S demonstrated the need for sulphate to be reduced to sulphite and thiosulphate before it can be metabolized.

1913. Joe Lie Kian, Njo-Injo Tjoei Eng, Sutomo Tjokronegoro, & Emmons (C. W.). **Phycomycosis (mucormycosis) in Indonesia—Description of a case affecting the subcutaneous tissue.**—*Amer. J. trop. Med. Hyg.*, **9**, 2, pp. 143–148, 7 fig., 1960. [16 ref.]

A report from the Sch. Med., Djakarta, of subcutaneous phycomycosis in a 7-yr.-old Indonesian girl, the 3rd case reported from Indonesia [**3**, No. 149]. A subcutaneous,

sharply demarcated, smooth swelling covered the right upper arm. It was not painful and the patient was in good general condition. Microscopic examination revealed granulomatous tissue containing few, large, branching, infrequently septate, hyphae (5·4–18·5 μ diam.), surrounded by a band of granular eosinophilic material 3–15 μ wide. A phycomycete was isolated but could not be induced to form spores. After 11 months the lesion had healed, apparently without treatment.

1914. Bolgert (M.), Deluzenne (R.), Tabernat (J.), Poisson (R.), & Peillon (Mme F.). **Un cas de chromoblastomycose.** [A case of chromoblastomycosis.] —*Bull. Soc. franç. Derm. Syph.*, **67**, 1, pp. 8–12, 1960.

The symptoms, diagnosis, and treatment of an infection by *Phialophora pedrosoi* of the right leg and thigh of a 54-yr.-old farmer from the island of Réunion are described. At the time of writing the patient was receiving a daily intravenous injection of NaI and an ampulla of sterogyl 15 twice weekly with no apparent effect on the lesions.

1915. Costello (M. J.). **Tratamiento de la cromoblastomicosis con inyecciones locales de anfotericina-B.** [The treatment of chromoblastomycosis with local injections of amphotericin B.] –*Rev. Asoc. méd. argent.*, **73**, 11, p. 482, 1959.

Already noticed [**3**, No. 846].

1916. Fuentes (C. A.) & Bosch (Z. E.). **Biochemical differentiation of the etiologic agents of chromoblastomycosis from non-pathogenic Cladosporium species.**—*J. invest. Derm.*, **34**, 6, pp. 419–421, 1960.

At the Dept exp. Path., Univ. Havana Sch. Med., Cuba, *C. langeronii*, *C. fontoynontii*, *C. olivaceum*, 19 other *C.* spp., and a series of unidentified *C.* spp. liquefied gelatin and Loeffler's serum, coagulated milk, and digested starch, while, with a single exception (*Fonsecaea* [*Phialophora*] *pedrosoi*, str. 1504) no isolate of *C. carrionii*, *C. trichoides*, *F. compactum* [*P. compacta*], *F.* [*P.*] *pedrosoi*, *P. jeanselmei*, and *P. verrucosa*, all agents of chromoblastomycosis, had any effect on these media [cf. **1**, No. 1372; **2**, No. 1237].

1917. Caretta (G.). **Isolamento comparativo da escreti umani del Geotrichum candidum e saggi di patogenicità.** [Comparative isolation from human excreta of *G. candidum* and tests of pathogenicity.]—*Atti Ist. bot. Univ. Pavia*, Ser. **5**, **17**, pp. 293–300, 1960. [Engl. summ. 31 ref.]

Inoculations of rabbits with 8 human strs. of *G. candidum* gave negative results. In 2 animals, massive intravenal inoculation of the fungus produced a few small granulomata in the lungs, but this is regarded as a purely mechanical effect.

1918. Van Uden (N.) & Carmo-Sousa (Lidia Do). **Some physiological properties of Geotrichum candidum.**—*Mycologia*, **51** (*1959*), 4, pp. 595–598, 1 graph [1960].

At Dept Microbiol., Bot. Inst., Univ. Lisbon, Portugal, all of 23 strs. from various sources, including human and animal faeces and dairy products, which according to Carmichael's morphological criteria [cf. **3**, 572] belonged to *G. candidum*, behaved identically in assimilation tests with 23 different compounds. All split fat. Only 2 were deficient for a single vitamin, the rest being independent. Some variation, possibly only quantitative, was noted in acid and gas formation in glucose and galactose broth. Some strs. were unable to grow at the body temp. of man and of certain animals.

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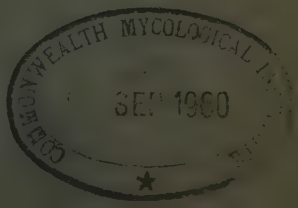

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AND THE
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